

The South, the Negro, and Business

(Page 98)

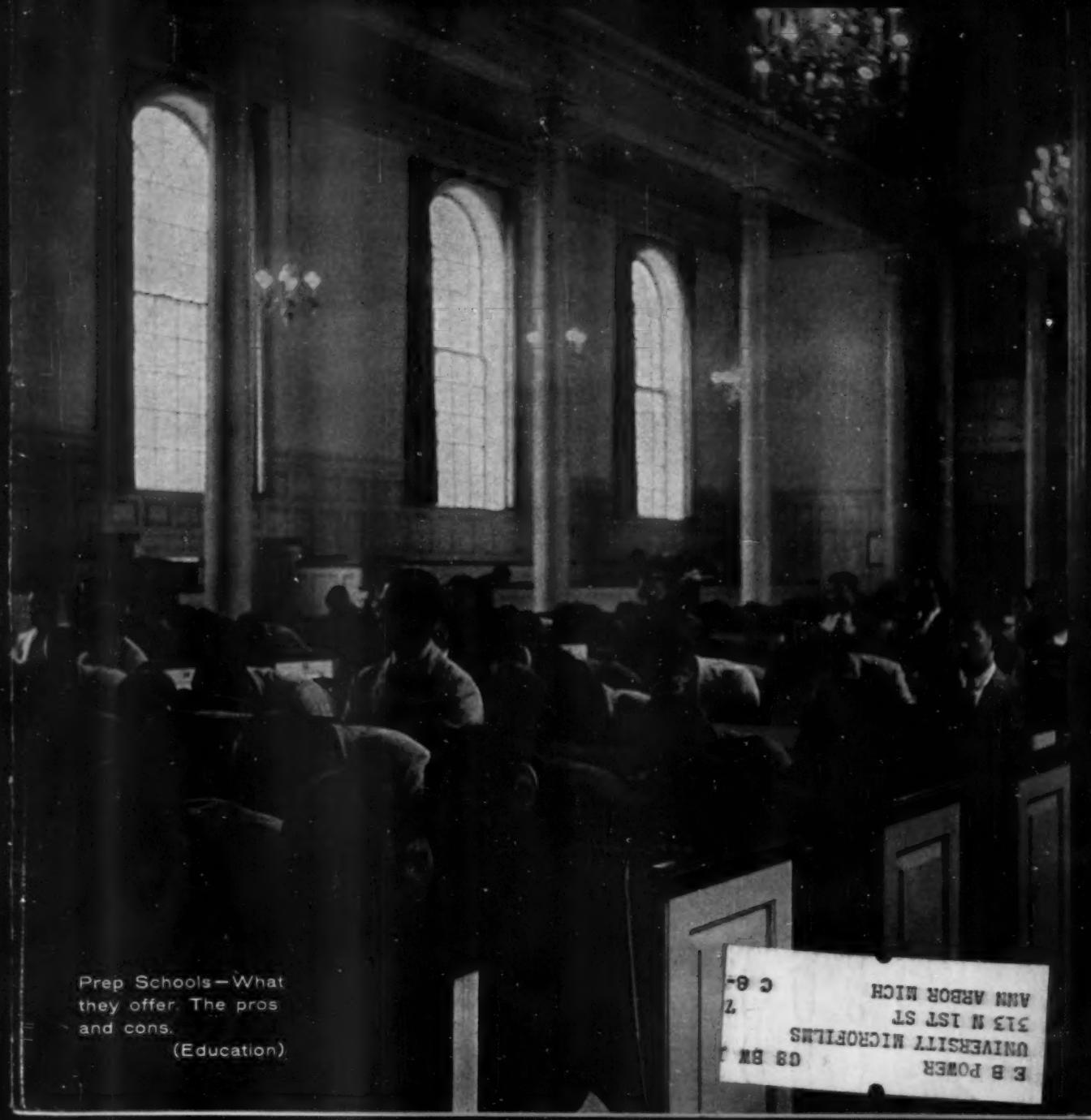
BUSINESS WEEK

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A McGRAW-HILL PUBLICATION

FIFTY CENTS

OCT. 26, 1957



Prep Schools—What
they offer. The pros
and cons.

(Education)



FOUND...a timber Fountain of Youth!

PRINCE DE LEON believed one drink from the mythical fountain of youth would make him live forever. He failed to find the fountain, but modern timber experts have found one for wood.

An important ingredient in timbermen's magic potion is hexylene glycol, a solvent made by Shell Chemical. Combined with a powerful fungicide, hexylene glycol has such extraordinary penetrating qualities that the fungicide is carried deep into the

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This timber Fountain of Youth is another Shell Chemical contribution to better products for industry and agriculture.

Shell Chemical Corporation

Chemical Partner of Industry and Agriculture
NEW YORK



IN BUSINESS THIS WEEK October 26, 1957

GENERAL BUSINESS

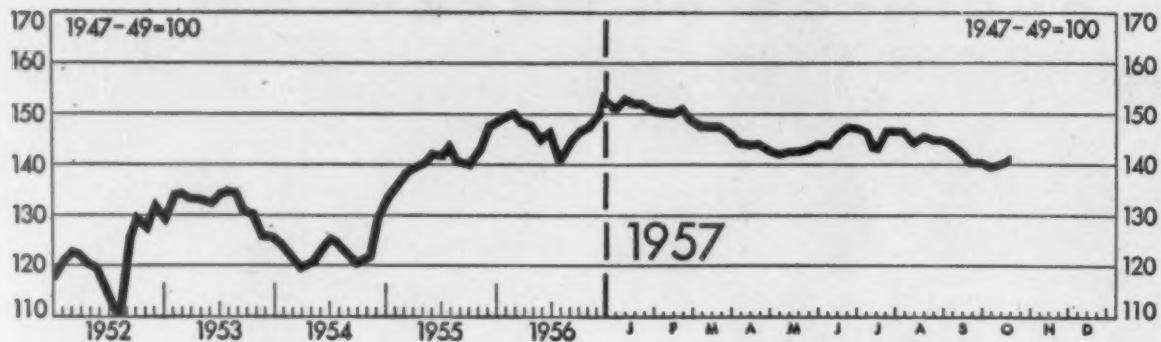
	Page
BUSINESS OUTLOOK	35
WASHINGTON OUTLOOK	57
INTERNATIONAL OUTLOOK	147
PERSONAL BUSINESS	149
THE TREND	204
FIGURES OF THE WEEK	2
CHARTS OF THE WEEK	92
READERS REPORT	5

WASHINGTON'S FIRST STEPS. The challenge of Russia's missile advantage will be met by a drive for more Western teamwork.....	41
WHEN PENTAGON SWINGS ITS AX. Defense contractors are up in the air about how to finance their business.....	43
NO SHIFTING TO EASE—YET. The Fed is still watching for the right time to ease credit.....	45
PARIS' "SACK" BRINGS FIREWORKS TO FASHION.....	46
HOW TO MOVE A QUARTER-BILLION. Getting \$265-million in securities to new home brought some surprises even to State Mutual Life.....	49
SNIPING AT BESSIE SALARIES. But Bethlehem Steel's Pres. Homer defends high incentive pay for executives at hearing on steel prices.....	50
ATOMIC ACCIDENT STIRS UP THE BRITISH. Public finds the Windscale disaster was even worse than the government had admitted.....	52
IN BUSINESS. News about the fight for Who's Who, tax dodge for Pittsburgh cops, lawyer barred by SEC, canning the smog in Los Angeles.....	54

THE DEPARTMENTS

BUSINESS ABROAD:	In Business Abroad.....	74
	Australia Expands Steel Output.....	76
	Insuring Bets Abroad. Overseas guarantee program is due for boom.....	81
COMMODITIES:	For Scrap, a More Sober Future. A subdued 1958 and a tighter rein by steelmen..	114
EDUCATION:	The Prep School.	
	Fathers at Hotchkiss appraise their sons' schooling.....	116
	The new role of the traditional boys' boarding schools.....	125
FINANCE:	In Finance	63
	Traders All Over Free World Get That Sinking Feeling.....	64
	Only 49 Days . . . to shop before Christmas. Will they salvage the year for department stores?	70
GOVERNMENT:	In Washington. News about radioactive fallout, interstate highways, government lease-purchase projects, pipeline antitrust suits.....	82
LABOR:	Industrial Unions Tighten Ranks. AFL-CIO Industrial Union Dept. aims to mold its smaller affiliated unions into a united front.....	151
	C-of-L Boosts a Million Wages. Mid-September rise assures hikes up to 4¢ an hour.	152
	UAW Concentrates on Wages as both sides warm up for negotiations, the shorter work week has been sidetracked.....	155
	URW is Decertified at Plant. The incident is touching off a new fight against T-H....	155
	Unification. AFL-CIO is merging small, federal locals into its big unions.....	156
	Court Takes Up Hoffa's Fate. Judge orders hearing on legality of convention that elected Hoffa Teamsters' president.....	158
	In Labor	161
MANAGEMENT:	In Management	193
	AMF's Unorthodox Success Story. It fattened by flouting many rules.....	195
MARKETING:	Catching the Customers at the Most Critical Age. Ford tries for the young....	84
	In Marketing	91
THE MARKETS:	Was It a Real Bottom. The postwar bull market died a year ago, but the question now is: Was the midweek rally a genuine upturn?.....	163
NEW PRODUCTS:	Building Kit for Mechanical Tinkerers.....	186
	Tub-less Washer. Machine can do its stuff in any sink. A batch takes 10 minutes..	188
PRODUCTION:	The Extra Something in Gasoline. Refiners try new additives for new purposes....	173
	Man-Made Gems Swing Weight. General Electric's industrial diamond pilot plant will soon become a full-scale operation.....	182
REGIONS:	Despite Tension, the South Keeps on Gaining. What interracial problems are—and are not—doing to the region's industrial growth.....	98
RESEARCH:	Contraceptive Pills on Market.....	112

FIGURES OF THE WEEK



BUSINESS WEEK INDEX (chart)

1946 Average	Year Ago	Month Ago	Week Ago	Latest Week
91.6	148.3	141.1	†141.0	*141.8

PRODUCTION

Steel Ingots (thous. of tons).....	1,281	2,491	2,105	12,070	2,045
Automobiles and trucks.....	62,880	117,930	68,875	159,847	94,387
Engineering const. awards (Eng. News-Rec. 4-wk daily av. in thous.).....	\$17,083	\$78,264	\$54,222	\$54,661	\$55,381
Electric power (millions of kilowatt-hours).....	4,238	11,333	11,991	11,709	11,684
Crude oil and condensate (daily av., thous. of bbls.).....	4,751	6,997	6,840	6,729	6,747
Bituminous coal (daily av., thous. of tons).....	1,745	1,703	1,683	†1,658	1,652
Paperboard (tons)	167,269	276,397	296,404	299,922	308,059

TRADE

Carloadings: miscellaneous and L.C.L. (daily av., thous. of cars).....	82	77	68	69	69
Carloadings: all others (daily av., thous. of cars).....	53	60	55	55	55
Department store sales index (1947-49 = 100, not seasonally adjusted).....	90	134	131	127	132
Business failures (Dun & Bradstreet, number).....	22	254	287	244	258

PRICES

Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100).....	311.9	417.1	403.4	387.7	388.0
Industrial raw materials, daily index (BLS, 1947-49 = 100).....	††73.2	97.4	89.3	86.7	86.3
Foodstuffs, daily index (BLS, 1947-49 = 100).....	††75.4	81.3	83.7	81.9	82.6
Print cloth (spot and nearby, yd.).....	17.5¢	19.3¢	17.8¢	17.6¢	17.6¢
Finished steel, index (BLS, 1947-49 = 100).....	††76.4	168.6	181.5	181.8	181.8
Scrap steel composite (iron Age, ton).....	\$20.27	\$56.83	\$43.83	\$37.33	\$35.33
Copper (electrolytic, delivered price, E & M, lb.).....	14.045¢	39.325¢	26.920¢	26.770¢	26.770¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.).....	\$1.97	\$2.29	\$2.11	\$2.14	\$2.14
Cotton, daily price (middling, 1 in., 14 designated markets, lb.).....	**30.56¢	33.17¢	33.19¢	33.48¢	33.58¢
Wool tops (Boston, lb.).....	\$1.51	\$1.90	\$2.12	#	\$2.00

FINANCE

500 stocks composite, price index (S&P's, 1941-43 = 10).....	17.08	46.17	43.24	41.23	39.97
Medium grade corporate bond yield (Baa issues, Moody's).....	3.05%	4.17%	4.95%	4.97%	5.00%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate).....	3/4-1%	3 3/4%	4%	4 1/4%	4 1/4%

BANKING (Millions of Dollars)

Demand deposits adjusted, reporting member banks.....	††45,820	55,623	55,094	54,344	54,774
Total loans and investments, reporting member banks.....	††71,916	86,066	87,052	87,267	87,292
Commercial and agricultural loans, reporting member banks.....	††9,299	29,836	32,603	32,144	32,084
U. S. gov't guaranteed obligations held, reporting member banks.....	††49,879	26,392	24,747	25,324	25,346
Total federal reserve credit outstanding.....	23,888	25,810	25,719	25,563	25,451

MONTHLY FIGURES OF THE WEEK

Cost of living (U. S. Dept. of Labor BLS 1947-49 = 100).....	September.....	1946 Average	Year Ago	Month Ago	Latest Month
		83.4	117.1	121.0	121.1

* Preliminary, week ended October 19, 1957.

† Revised.

‡ Insufficient trading to establish a price.

†† Estimate.

** Tea designated markets, middling 1 1/2 lb.

§ Data for 'Latest Week' on each series on request.

THE PICTURES—Black Start—98 (top rt.); Grant Compton—cover, 116, 117, 118, 125, 126, 127, 128, 130, 132, 142, 195; General Electric Co.—102; Shell Hershorn—46, 47, 48; I.N.P.—41, 99; Herb Kratovil—43, 44, 186, 187; Gene Pyle—84, 85; W.W.—98 (top lt. & bot.); George Woodruff—49.

B.F.Goodrich report:



Too hot to handle but it travels on rubber

B.F. Goodrich improvements in rubber brought extra savings

Problem: That fog you see is a cloud of smoke and steam rising from sizzling hot sand on conveyor belt in a foundry. The sand is a scorching 300 degrees—so hot it was ruining belts in a few months.

What was done: When a B.F. Goodrich distributor heard of the problem, he recommended a new conveyor belt called Solarflex. This belt, designed by B.F. Goodrich engineers, is made of a special rubber that stays soft and pliable at temperatures that cause other belts to harden, crack and finally break down.

Savings: The B.F. Goodrich hot-material belt you see here had lasted 30 per cent longer than the previous belt when the picture was taken. It had performed for 9 months—old age for a belt working 16 hours a day, 5 days a week, hauling 60 tons of hot sand an hour.

Extra benefits: Because the B.F. Goodrich Solarflex belt stays flexible even when exposed to high heat, it not only lasts longer than other hot-material belts, but also reduces maintenance costs because it holds fasteners better.

Where to buy: Your B.F. Goodrich distributor has full information on the conveyor belt described here. And, as a factory-trained specialist in rubber products, he can answer your questions about all the rubber products B.F. Goodrich makes for industry. *B.F. Goodrich Industrial Products Company, Dept. M-200, Akron 18, Ohio.*

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BUSINESS WEEK • Oct. 26, 1957

READERS REPORT

Well Done

Dear Sir:

I have just completed reading the editorial entitled, *New Medicine for Free World Finances* and *Counsel of Despair*, in the September 28th *Business Week*. This follows upon other previous editorials in this area which I recall—particularly the editorial which appeared September 7, entitled "A Time for Searching Appraisal."

Let me register my hearty approval of the content of these editorials—and thoughtful approach to some very difficult problems, emphasizing the need for care and confidence in our present economic and financial circumstance.

LOUIS POLK

PRESIDENT
THE SHEFFIELD CORP.
DAYTON, OHIO

Dear Sir:

Congratulations on the excellent and timely report: *Paper—Modern Industry Burden* [BW—Oct. 5'57, p139]. . . .

ROBERT A. SHIFF

PRESIDENT
NATIONAL RECORDS MANAGEMENT
COUNCIL, INC.
NEW YORK, N. Y.

Lucky, Ha

Dear Sir:

Please refer to your article "Does Big-League Baseball Pay" [BW—Oct. 5'57, p41] in which you state ". . . that the World Series encounters in Milwaukee were scheduled for Saturday and Sunday . . . plus Monday if the Braves are lucky."

For a national magazine, how stuffy and provincial can you get?

JOHN F. KONRAD
INVESTMENT RESEARCH OFFICER
THE NORTHWESTERN MUTUAL LIFE
INS. CO.
MILWAUKEE, WIS.

* The Braves were not only lucky, they proved that they were the new World Champions of baseball.

Beryllium Veteran

Dear Sir:

You present an interesting story of two metals including beryllium [BW—Oct. 5'57, p201]. However, the paragraph entitled "Beryllium's History" leaves an impression that the production of beryllium began

TRADE PAPER

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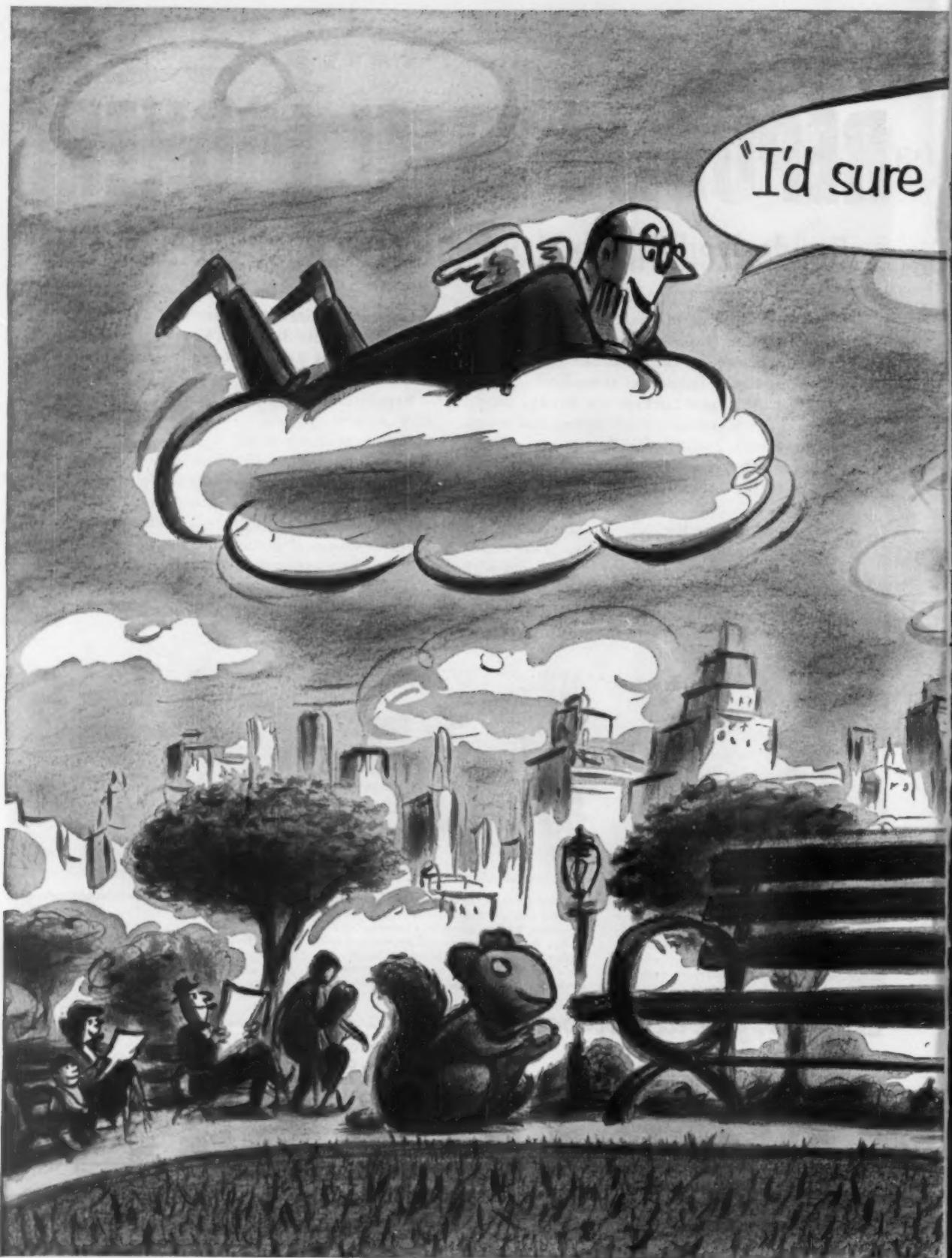
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rather be here than in your shoes, Ted!"



Ted: Now you tell me.

Joe: The tax man is giving you a bad time, huh?

Ted: It's no skin off my nose, Joe. But it looks pretty bad.

Joe: You're my executor, Ted. Execute!

Ted: It's not that easy. You didn't leave much in the way of liquid assets, you know.

Joe: Get a loan from the bank, man!

Ted: Things have changed. It's hard to get hold of that much money these days.

Joe: But I left a thriving business.

Ted: Inheritance taxes will change that. I'll have to sell the stock for whatever I can get. Your family may lose control . . . you should have listened to your attorney and your banker.

Joe: I know, I know. And I should have talked to the Man from Equitable.

Ted: I don't want to rub it in. But the firm could have had every cent it needed to pay the taxes and keep going.

Joe: Yeah. Yeah. Yeah.

Ted: Business insurance, Joe.

Joe: I heard you, Ted.



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The Aluma Craft Boat Company, one of the world's largest manufacturers of aluminum boats, pays careful attention to every detail of construction.

In assembling these fine boats, they use an air-operated Graco Powerflo Pump to extrude caulking material "direct-from-pail", laying it on the half shells of the boat before they are joined. Application is fast and accurately controlled for economy.

Formerly, they purchased the caulking material in small tubes and applied it with small hand guns. Now, with a Powerflo on the job, they buy in 5-gallon pails and save 25% in material cost!

If your company uses coatings, sealers, adhesives, or similar heavy compounds, Graco's "direct-from-drum" pumps can mean dollar savings for you. They fit containers from 5-gallon pails to full size drums. Write for your copy of the new Powerflo catalog . . . it contains 54 pages of pictures and case history data. Ideas for your plant!

GRACO . . . Air-powered paint circulating systems, Powerflo and Fast-Flo drum pumps, Graco lubricating equipment. Sold through better industrial distributors.

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air-powered "DIRECT-FROM-DRUM" PUMPS

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At Aluma Craft, they use a special extrusion nozzle, illustrated above, which lays the caulking material out in 5 narrow beads. When considering possible applications, remember that the Graco laboratory will report, without obligation, on the pumpability of any material, plus suggestions for proper equipment. Request this service.

in 1949 in a government-owned plant, as in the case of zirconium.

The Brush Beryllium Co. has produced and sold pure beryllium metal in its own plant since 1935. Sales in 1942 exceeded 1,000 lb. and the annual volume grew subsequently to more than 13,000 lb. before production was started at the Luckey, Ohio plant.

The new larger contracts of the Atomic Energy Commission have the valuable effect of increasing the production rate of beryllium, thus substantially decreasing the cost per pound. Brush's relatively long experience in producing and fabricating beryllium has enabled it to estimate costs and to perform according to the estimates repeatedly and you may be assured that the study for this new contract was very carefully made.

D. D. HERSHBERGER

TREASURER
THE BRUSH BERYLLIUM CO.
CLEVELAND, OHIO

Money Available

Dear Sir:

Will you kindly stop my subscription instantly on account of your lousy editorial on the Arkansas situation [BW—Sep. 14 '57, p204]. If you know of any worthy colored folks in proximity to your home that need financial assistance to buy property near you, have them get in touch with me. I will personally lend them the money to buy property preferably a vacant lot to build the sort of home that they require near you. Back up your editorial by cooperating with me to enable you to have a good Negro neighbor.

H. M. MARTIN

NEW ORLEANS, LA.

Privately Sponsored

Dear Sir:

I am delighted to see the reference to France Actuelle which appears in the current issue [BW—Oct. 7 '57, p85]. May I point out, however, that France Actuelle is not "issued by the French Embassy in Washington," as stated . . . Rather, this newsletter is sponsored and financed by the Federation of French Industries, a private association of French businessmen, and the Comité France Actuelle, which is responsible for the publication of the newsletter, is a committee of the federation.

JOAN RAUSHENBUSH

UNITED STATES EDITOR
FRANCE ACTUELLE
WASHINGTON, D. C.



Helicopters are now operated in countries throughout the world.

NEW DEFENSE WEAPON—BRIGHT PROMISE FOR YOU

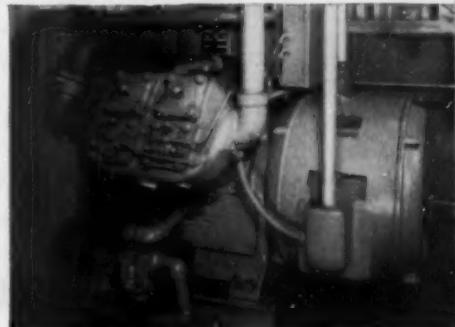
A new era of flight has opened with helicopters. Immediate purpose: increasing the mobility and effectiveness of our defense forces. Long-range hope: a new kind of transportation for business and personal use.

At its huge Palo Alto plant, Hiller Helicopter is now producing the Army's H-23D helicopter, embodying a new transmission and drive system designed for 1000-hour service between overhauls. And as so often happens on huge, important projects,

Gardner-Denver is in the picture—helping to speed production with compressed air power and air tools.

Gardner-Denver, a company now nearing its hundredth year of operation, has kept young in its technological progress — in research and product improvement.

That is why you will find Gardner-Denver products used in so many essential industries in so many countries of the world. *Gardner-Denver Company, Quincy, Ill.*



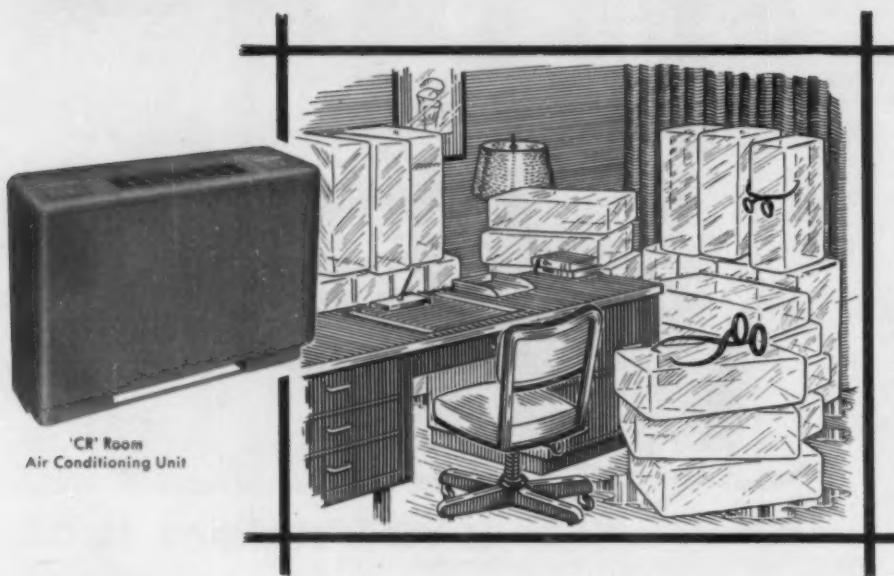
Gardner-Denver air compressor at Hiller Helicopter's plant. Gardner-Denver "Airfeedrills"® are also used for drilling mounting holes.



ENGINEERING FORESIGHT—PROVED ON THE JOB
IN GENERAL INDUSTRY, CONSTRUCTION, PETROLEUM AND MINING

GARDNER - DENVER

One Ton of Air Conditioning



Cooling capacity is commonly measured in Tons, one Ton being equal to the amount of heat removed by a ton of ice melting in 24 hours—or 12,000 BTU per hour. (Another common measure of capacity is horsepower—one H.P. being roughly equivalent to one Ton.)

But...

Who wants a room full of ice?

Simple to figure out in theory, putting air conditioning to work is another matter demanding precisely engineered products.

Dunham-Bush manufactures this technically correct air conditioning equipment (and also heating, refrigeration, heat transfer products) for hotels, factories, churches, schools, stores and other buildings.

Chances are you've enjoyed a more comfortable atmosphere in places you go, because of behind-the-scenes Dunham-Bush products.

Want to know more about us? For free brochure "This is Dunham-Bush", write Dunham-Bush, Inc., West Hartford 10, Connecticut.

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Out-of-town telephoning is good business, says Mr. Clement S. Castleberry, President of Castleberry's Food Company

"I keep in touch by telephone with our salesmen in 17 states"

"The food business moves fast these days," says Mr. Clement S. Castleberry, president of Castleberry's Food Company, Augusta, Georgia. "If you're not on the spot when things happen, you're out of luck. That's why I use the telephone to keep in touch with our salesmen who travel seventeen states.

"For example, an inquiry came in from a large chain in New York. I telephoned our New York office and had a salesman in the buyer's office almost immediately. Result: a most impressed buyer and, better still, a

nice sized order on the first call!

"Frankly," Mr. Castleberry says, "I'd hate to try to run our business today without being able to call out of town so conveniently."

Success with sales by telephone can be yours, too. We'd like to show you how the telephone can fit most profitably into your operations. Just call your Bell Telephone Business Office and a representative will visit you.

LONG DISTANCE RATES ARE LOW

Daytime Station-to-Station Calls

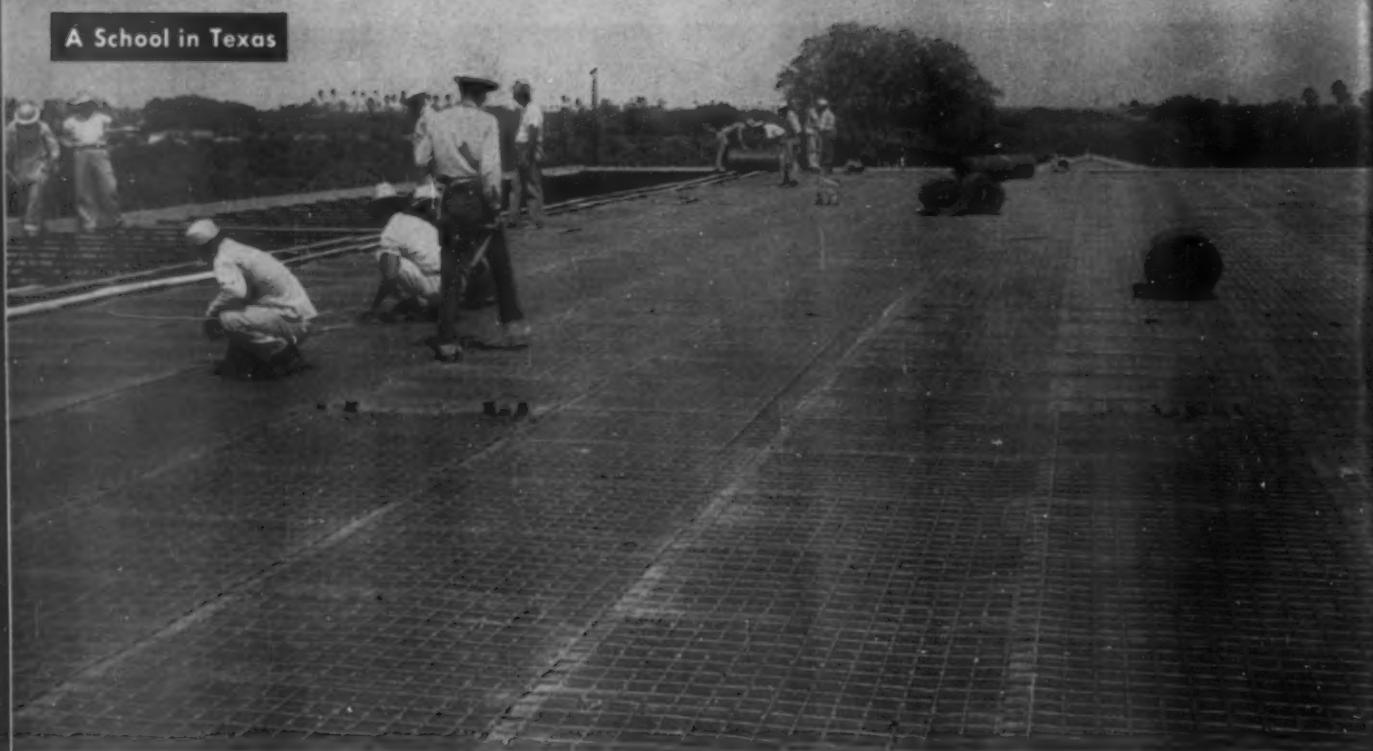
<i>For example:</i>	<i>First 3 Minutes</i>	<i>Each Added Minute</i>
Augusta, Ga., to Charlotte, N.C.	65¢	20¢
Chicago to Indianapolis	70¢	20¢
Baltimore to Boston	110¢	30¢
Los Angeles to New York	125¢	65¢

Rates are lower after 6 p.m. and all day Sunday. Add 10% federal excise tax.

BELL TELEPHONE SYSTEM



A School in Texas



Ease of Installation counted heavily with the architect and builder who used Steeltex for concrete slabs on the Travis Junior High School in McAllen, Texas. Architect:

Zeb Rike of McAllen. Contractor: W. E. Crawford Co. also of McAllen. Steeltex was chosen because of its "low cost, ample supply, ease of installation and low labor costs."

No wonder Steeltex is used everywhere when...

Steeltex saves 55 working days on one job

A Hotel in Nevada



Elimination of forms was cited as a distinct Steeltex advantage by the architect for this job, the Riviera Hotel in Las Vegas, Nevada. When a 200-room addition was planned, Steeltex was specified for that, too. Architect: Roy F. France & Son, Miami Beach, Florida. Consulting Architect: J. Maher Weller, Las Vegas. Contractor: Taylor Construction Co., Miami, Florida.

On big jobs or small . . . in the East, West, North and South, you'll find Steeltex. Architects and contractors like the way it speeds work, cuts costs and makes better concrete slabs.

Steeltex, the Pittsburgh Steel wire mesh reinforcing that carries its own waterproofed form right on its back, is the answer to a big question that designers and builders face constantly:

"How can we maintain or improve quality on our tight budget and move in quicker?"

In California, Designer Robert Sherman, C.S.D., credits Steeltex with pulling him out of a jam when heavy rains and windstorms delayed construction of the \$2,800,000 Villa Hotel in San Mateo.

For a while, Mr. Sherman said, it appeared that bad weather would hold up the opening past the start of the 1956 Republican National Convention in nearby San Francisco.

"When weather conditions finally let us go back to work, Steeltex saved us 55 working days or 20 percent of the total construction time," he related.

A Hotel in California



Speedy construction possible with Steeltex pulled the builders out of jam in construction of the luxurious Villa Hotel in San Mateo, California. This is the job where Steeltex saved 55 working days. Designer: Robert Sherman of San Mateo. Contractor: Pacific Development Co.

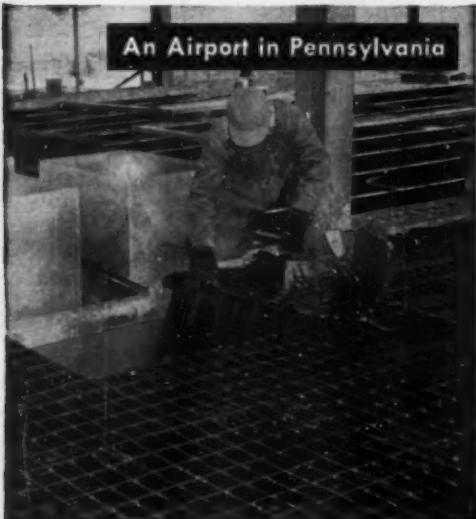
"We completed the hotel in time for the Texas delegation to occupy their reserved rooms."

Mr. Sherman, who has used Steeltex on everything from a closet-size used car lot headquarters to a big office building, said, "Builders who overlook using Steeltex on small jobs are missing a good bet."

Now, jump north to Erie, Pa., where E. E. Austin & Son, Inc., built a new Airport Terminal at the Erie Airport which was designed by Nelson, Goldberg & Heidt, registered engineers and architects. Construction Superintendent John McKinnon said:

"We've laid acres and acres of

An Airport in Pennsylvania



The low cost of Steeltex compared to lumber for forms was cited during work on the new terminal at Port Erie, the airport at Erie, Pennsylvania. Architect: Nelson, Goldberg and Heidt of Erie. Contractor: E. E. Austin & Son, Inc., of Erie.

A TV Station in Alabama



Low cost of changing plans when Steeltex is used made a hit with the builders of WSFA Radio and TV Center in Montgomery. Architects: John Shaffer and A. L. Williams Jr. Structural Engineer: Cecil Williams. Contractor: Bear Brothers Construction Co.

Steeltex. You can't beat it on costs. Why, Steeltex installed costs less than the lumber alone if we had to build forms."

A similar commendation came from Texas where the \$380,000 Travis Junior High School is the pride of McAllen, Texas. For that job, Architect Zeb Rike chose Steeltex for 43,698 square feet of second floor and roof deck because of its "low cost, ample supply, ease of installation and low labor costs for installation."

On the same job, Contractor W. E. Crawford declared he had always gotten "fine results with Steeltex."

"All you do is unroll it, tighten it, clip it and pour concrete. I'd recommend Steeltex any place a fine masonry deck is needed."

In Las Vegas, Nevada, where there's no gambling in building construction, Steeltex was specified by Architect Roy F. France Sr. for 108,000 square feet on nine floors of the Riviera Hotel and a new 200-room addition. Mr. France said:

"Steeltex eliminated extra

work because it did away with forms. It permitted quick installation and made for a less expensive job."

On a new office and studio building for Station WSFA in Montgomery, Alabama—the \$145,470 WSFA Radio and TV Center—the building schedule was tight because of commitments made to the FCC.

Here Architects John P. Shaffer and Albert L. Williams Jr. found:

"Steeltex let us get the building closed in quicker and also allowed us to change our minds on the layout of the floor conduits required by a modern TV and radio station. We were grateful that Steeltex permitted us to make changes with a minimum of loss and delay."

Steeltex can provide savings in time and money for you, too, while giving you better, higher quality slabs.

Cash in now on the advantages of using Steeltex. You can do it by calling the nearest Pittsburgh District Sales Office listed below. Do it today.

► See Sweets Catalog Section 2-B

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NEW ADVANTAGES

How California's Metropolitan Oakland Area . . . Already a Preferred Spot for Branch Plants . . . Is Making Itself Even More Attractive to Industry.

Last January, the Metropolitan Oakland Area, which includes all of Alameda County, California, took the first step in a program designed to make sure it will continue to be one of the nation's most favored locations for industry.

Its forward-looking governing body—the Alameda County Board of Supervisors—employed the Urban Land Institute, of Washington, D.C., one of the nation's highest authorities on industrial development, to analyze existing conditions and recommend improvements.

By July, the Institute's first recommendation—a Master Plan for the protection and orderly development of industrial areas—had been prepared. In September, this Plan was approved by the Board of Supervisors.

The Plan is a composite of city and county plans and outline

proposals covering major land areas and major circulation needs throughout the county. It serves as a framework within which all jurisdictions can work together in integrating projects for county development.

NEW ACREAGE ZONED

In the Plan, approximately 13,000 additional acres are zoned for industrial use. Combined with acreage currently zoned for industry, this provides a total of more than 22,000 acres of industrial property—an amount the Institute considers more than adequate for the area's anticipated growth.

In addition to that which is located in major incorporated areas, the newly-zoned acreage includes some of the county's most desirable industrial property in smaller communities or semi-rural areas. Most is on, or easily accessible to, highways, freeways and railways.

All sites are level, easy to build on and quickly reached from a wide variety of residential sections nearby.

OTHER PROJECTS

In orderly fashion—through official and citizen action—other projects carrying out Institute recommendations are being undertaken. We will report progress on these projects from time to time, believing that they furnish evidence on two matters of vital concern to industry:

1. The friendly "governmental climate" industry needs and demands for growth and prosperity exists in Alameda County in an unusual degree.

2. The area's future development has already been blueprinted so that balanced growth through official and citizen action will be continued.

METROPOLITAN OAKLAND AREA

FOR INDUSTRY



Citizen action needed for fast completion of MOA's improvement projects is centered in county-wide Fact-Finding Committee named by Supervisors. Shown here at map of newly-zoned industrial areas are (standing left to right) Chairman R. T. Nahas and sub-committee chairmen Gerald Worthley, E. E. Jackson and Arthur Westlund. Seated: C. W. Mangum, Jack Kopke and R. E. Flynn.

In the meantime, any industry seeking the combination of advantages that has already brought the branch plants of more than 200 national concerns to this area, is invited to write for information.

**SEND FOR
FREE FACTFILE**

Ask for the MOA Factfile, containing Data Sheets dealing with Climate, Distribution, Markets, Labor Supply, together with Plant Location Map and new brochure

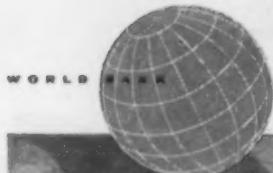
"The Broad Picture". If you wish specific data on plants, plant sites, spur track facilities, warehousing, tax rates or any other subjects affecting branch plant operation,

state your requirements and a Special Report will be prepared for you. Both services are available at no cost to you. Your inquiry will be kept in strict confidence.

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World Bank is among thousands of firms that have found that such protection results in better employee relations. A New York Life Plan is low in cost, easy to install, can be designed to meet specific needs. Ask your agent or broker, or mail coupon, for more information about New York Life group coverages.

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NEW YORK LIFE INSURANCE COMPANY

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New York 10, N. Y.



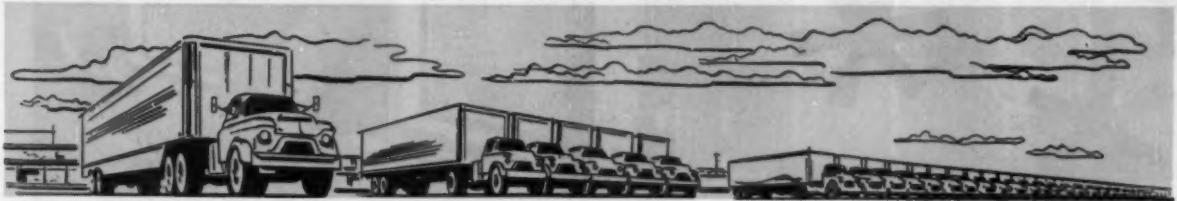
Please send me, without obligation, details of the Group Insurance coverages offered by New York Life.

Name _____

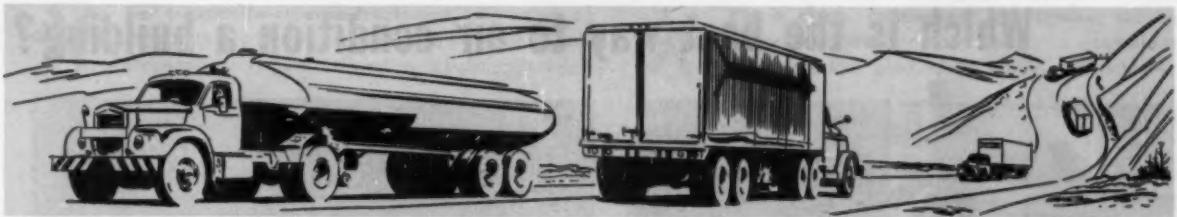
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City _____ Zone _____ State _____

Whether you own 1 truck—5 trucks—or 50 trucks



the Allison Fully Automatic Truck Transmission will enable you to haul more payload—faster—safer—and at lower cost than



ever before—in every type of trucking service

Only the Allison *fully automatic* truck transmission gives you *all* these cost saving features:

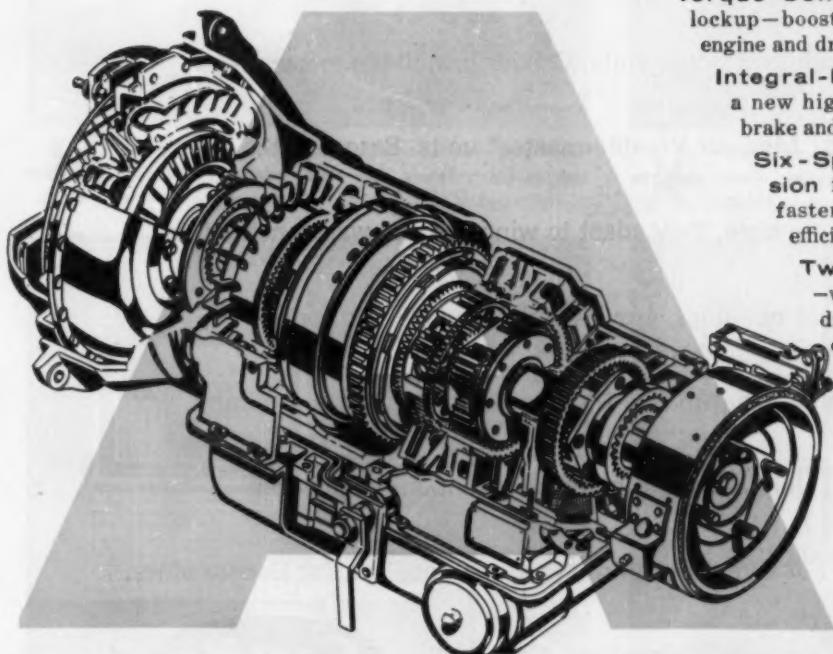
Torque Converter featuring direct-drive lockup—boosts operating efficiency—slashes engine and drive-line maintenance.

Integral-Hydraulic Retarder—brings a new high in road safety—a new low in brake and tire maintenance.

Six-Speed Automatic Transmission featuring Triple-Drive Range for faster trip time—increased driver efficiency.

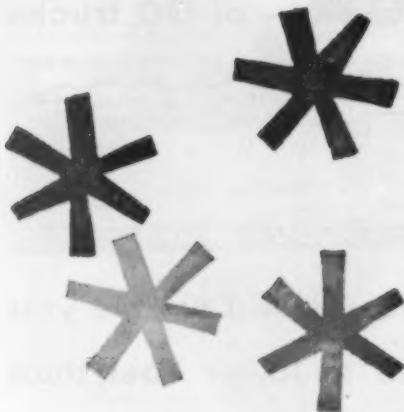
Two Power Take-Off Openings—with exclusive torque converter drive for more power and faster operation of auxiliary equipment.

Allison Automatic Transmissions are currently sold by leading truck manufacturers under various trade names. Find out how an Allison *fully automatic* truck transmission can repay its modest cost many times over in *your* trucking operation. See your truck dealer or write:

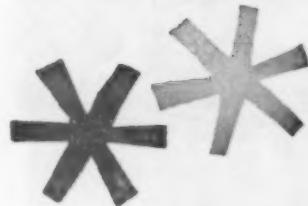


ALLISON DIVISION OF GENERAL MOTORS, Indianapolis 6, Indiana

Allison  **TORQMATIC DRIVES**



Which is the best way to air condition a building?



That depends on the building. Its size, age and shape are important.

Its construction details, such as windows, walls and columns,

affect the location of individual units. Carrier has all the answers—

here's the newest! Modular Weathermaster* units. Based on the

"building block" principle, they adapt to windows and wall construction

in both new and old buildings, provide individual climate control

in each room. Only Carrier makes Modular units like these to fit any

building problem. Here are six of many combinations—note how

flexible they are. For complete information, call your nearest Carrier office.

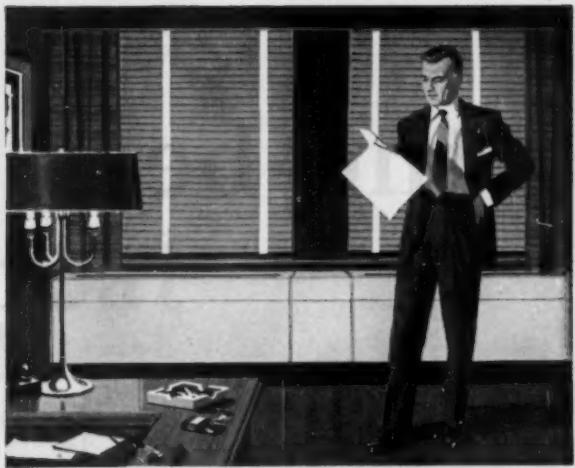
Or write Carrier Corporation, Syracuse, New York.

*Reg. U.S. Pat. Off.

Carrier



* **For column-to-column treatment,** trim wall-hung units with standard prefabricated enclosures, accessories and shelving are "tailored" to fit building modules.



* **For a clean, continuous appearance,** two well-proportioned Weathermaster base units separated by a filler piece look good, make future partitioning easy.



* **For pleasing corner assemblies,** a wall-hung Modular Weathermaster unit with prefabricated cabinet and run-out enclosure is both attractive and economical.



* **For floor-fed services,** a pedestal arrangement attractively conceals air and water risers. This method of distribution eliminates the need for furred-in risers.

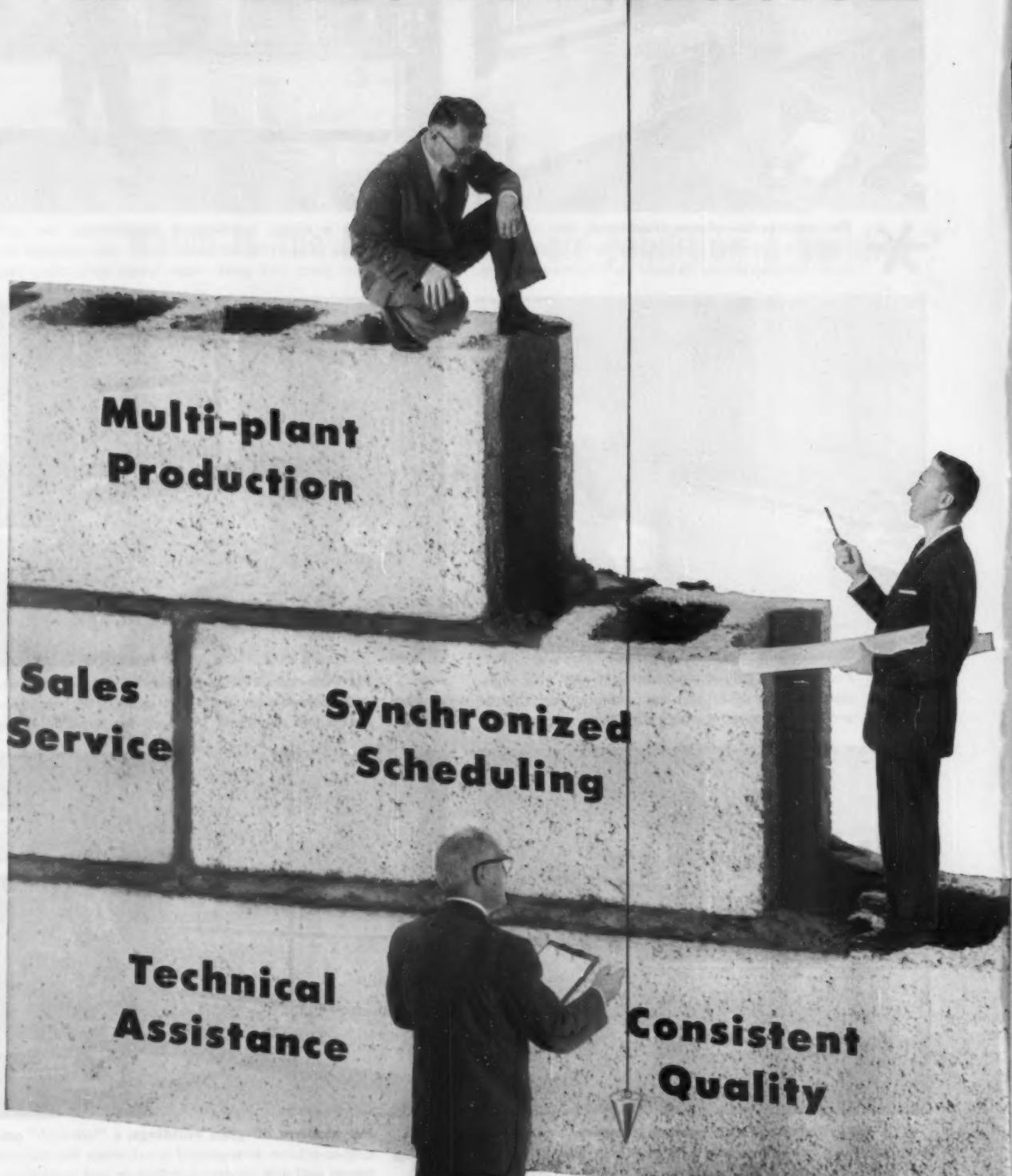


* **For harmony with custom interiors,** a decorative furred-in arrangement with base unit, inlet panel and discharge grille matches any interior treatment.



* **For modern, all-glass buildings,** a "foot-high" column-to-column arrangement is extremely flexible and blends well with modern architecture and furnishings.

the best foundation



for sound chemical buying

To avoid unnecessary operating costs, take a second look at your chemical supply sources. Are their facilities and services well matched to your particular requirements? For example, are you getting—

Synchronized Scheduling . . . deliveries coordinated with your requirements to keep inventories at an optimum level.

Multi-plant Production . . . ability to ship in spite of local shortages or other emergencies and at lowest cost.

Technical Assistance . . . practical assistance to help you handle and use chemicals to best advantage.

Consistent Quality . . . purity matched to your specifications to permit standardization of your process at highest efficiency.

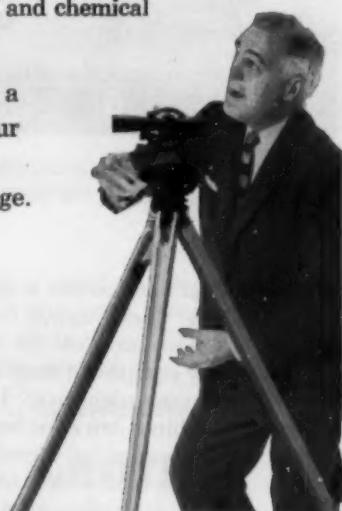
Sales Service . . . a working liaison between you and chemical production to assure smooth cooperation.

Now is a good time to call in Olin Mathieson. Let a team of experts in chemical marketing analyze your supply and handling procedure. Perhaps they can help you buy and use chemicals to better advantage.

MATHIESON CHEMICALS
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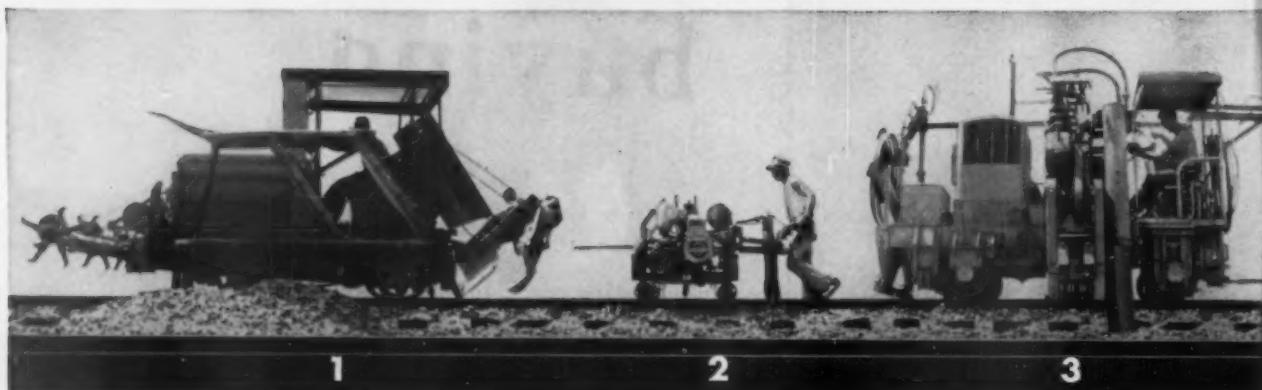


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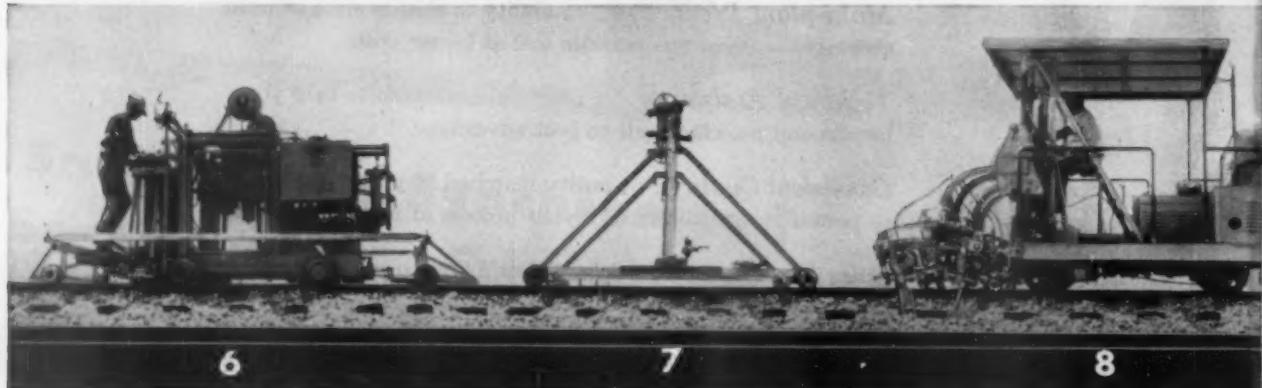
What's new on the New York Central

Mechanized muscle keeps so your freight moves faster...



Mechanized track gang rolls into action headed by ballast-regulating machine (1). Its rotating iron teeth can clear out macadam crossings; plows fastened to

sides move rock ballast away from ties so other machines can work on them. Pneumatic spike puller (2) easily pulls out 7" spikes which hold ties to rail.



Track leveling machines (6 and 7) and power jacks raise rail and ties to proper height so that tamping

machine (8) with power-driven arms can shove rock securely into place beneath ties. Lining machine (9)

MECHANIZATION is the order of the day on the New York Central.

A column of the Central's maintenance-of-way equipment may look, at first, like a patent lawyer's nightmare. But these weirdly designed machines can effortlessly grind out smooth, fast roadbeds at an incredible 4000 feet a day!

This means *more track open to more trains . . . more days* each year. As a result, trains keep moving faster, smoother, with less delay. A

sample stretch of track may get the undivided attention of a dozen strange, new machines. Some of this unique, costly equipment, however, is in danger of being outmoded on the Central . . . *before* most of the country's railroads have ever had a chance to use it.

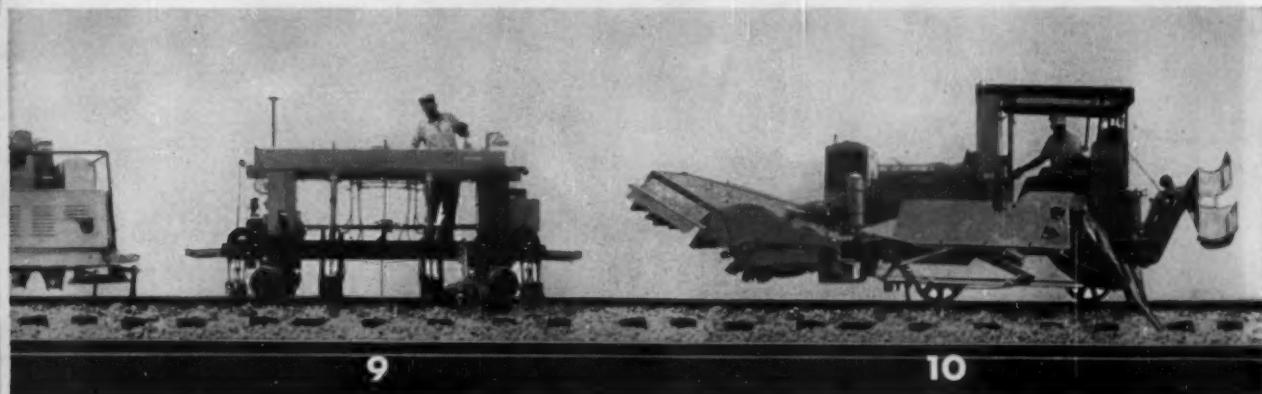
The Central is already experimenting with *newer* maintenance machines: a giant "fishing pole" that will string high-tension wire . . . a tie picker-upper that bundles these heavy beams

roadbed in trim and your ride is smoother



The tie-replacing machine that follows (3) does several jobs. Machine lifts track, kicks old cross pieces out from under rail and pulls in new ones. Power

spike driver (4) hammers in new spikes—four at a time. Then ballast regulator (5) sweeps rock back between ties for tamping machine that comes later.



then nudges track a fraction of an inch right or left into perfect alignment. Ballast regulator (10) with

rubber broom occupies clean-up spot; banks rock back alongside the track and sweeps ties clean.

like bobby pins . . . a new-type traveling "sky hook" crane to erect signal equipment.

And soon the Central hopes to get maintenance-of-way machines off the track completely . . . onto a service road that will run alongside the right-of-way. This will give maintenance crews more working time . . . yet keep tracks open.

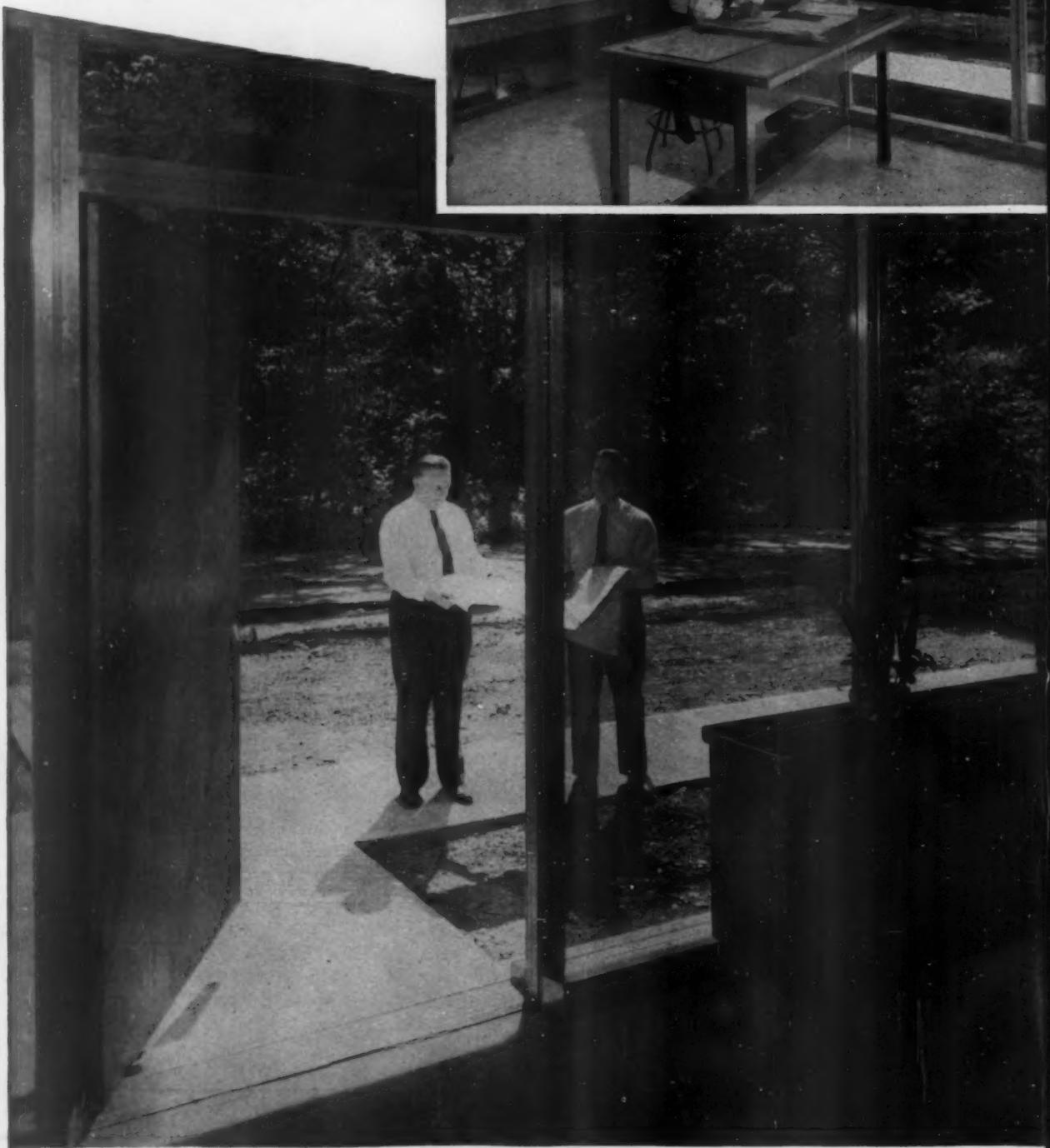
The new mechanized service equipment is New York Central rolling stock that the public rarely sees. But you will surely feel its effects—

in a better ride . . . in faster freight, passenger and express service. From any angle, this progressive railroad has a speedy, new look. Ask our freight salesman to tell you about it.

Route of the "Early Birds"—Fast Freight Service

**New York Central
Railroad**

Right—Efficiency is high all day in new drafting room of Aluminum Structures, Inc., because the glare reduction provided by AMERICAN LUSTRAGRAY sheet glass results in greater eye comfort. **Below**—Glare seen through opened entrance doorway at left is reduced approximately 50% by windows of AMERICAN LUSTRAGRAY at right of doorway. Note how the neutral gray tint of LUSTRAGRAY actually sharpens the view.



Below—Viewed from exterior, windows of AMERICAN LUSTRAGRAY provide an attractive appearance and interior privacy. Photo shows exterior of new plant-office of Aluminum Structures, Inc., Upper St. Clair Township, Bridgeville, Pa. Architects: Schell, Deeter & Stott, Pittsburgh, Pa. General Contractor: Dick Corp., Large, Pa. Aluminum Fabricator and Erector: Aluminum Structures, Inc. Glazier: Watson-Standard Co., Pittsburgh, Pa.



GLARE REDUCING SHEET GLASS

For efficiency | appearance | economy | privacy

—the architects chose American LUSTRAGRAY

Here's an example of how AMERICAN LUSTRAGRAY, a neutral gray sheet glass, has become a very functional part of modern building.

The owners of this spanking new industrial building wanted daylight without glare. LUSTRAGRAY gives them that—and at the same time provides a significant reduction in the transmission of solar heat. Result: increased task efficiency for occupants.

The appearance of LUSTRAGRAY has a very unique effect. Viewed from the exterior, LUSTRAGRAY is just dark enough to afford interior privacy and yet the occupant is provided excellent, undistorted vision. LUSTRAGRAY has an attractive, highly lustrous appearance with a minimum of distortion, and its neutral gray tint eliminates undesirable effect on interior or exterior colors. With AMERICAN's continuous drawing process, there is no variation in the color or quality of LUSTRAGRAY.

Significant economy is one result of the use of glass for

walls in place of other building materials, and glass lasts longer with practically no maintenance or deterioration in appearance.

The advantages of efficiency, appearance, economy, and privacy are available to you on your next design job. For glazed areas in industrial, commercial, institutional or residential designs, specify AMERICAN LUSTRAGRAY sheet glass—the new look in functional glazing.

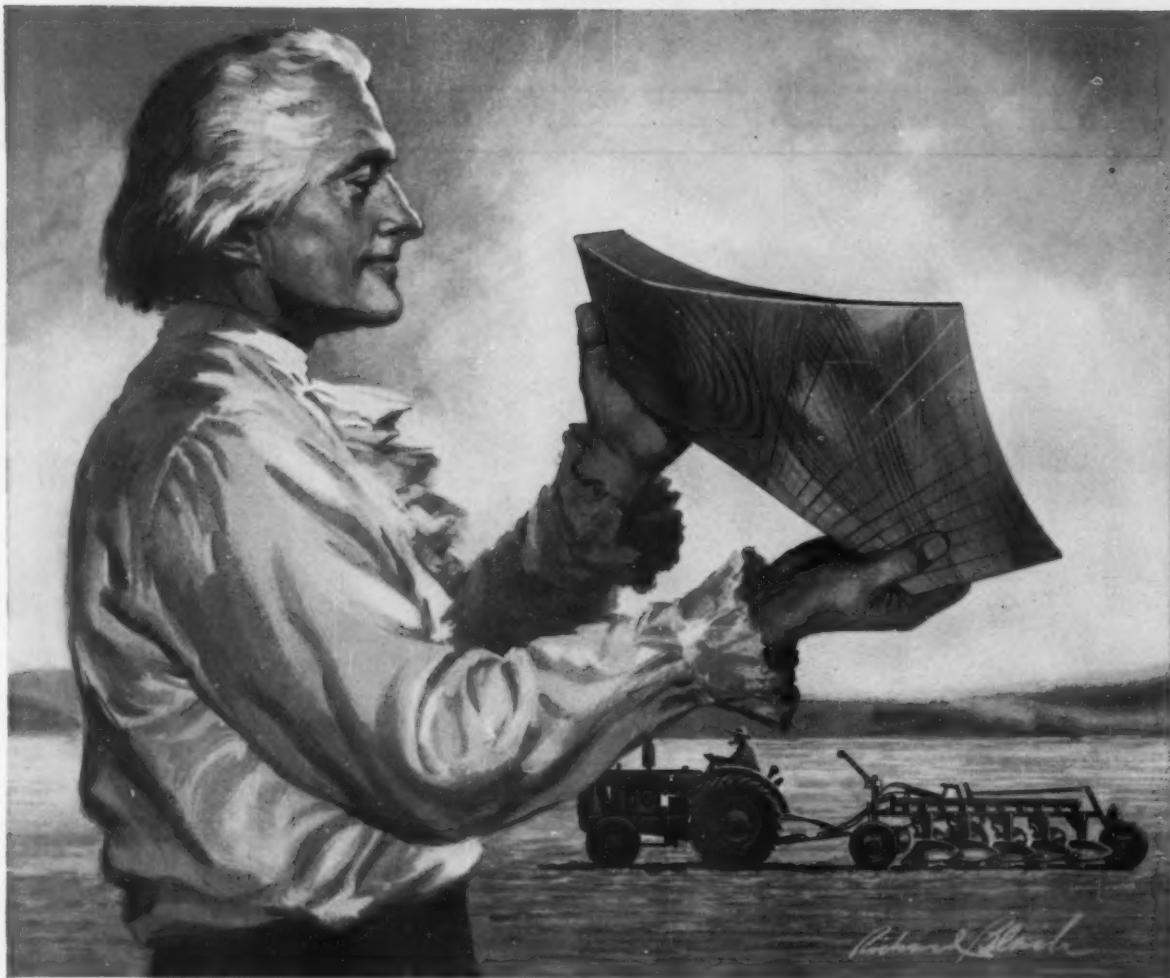
Write our Architectural Promotion Department for literature.

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He showed 'em how to dig . . .



■ A man of many great accomplishments, Thomas Jefferson was also a *farmer* who understood the farmer's vital problems. It was Jefferson, in fact, who invented a plow moldboard so revolutionary its streamlined principle is continued even in the modern plow.

For Eagle-Picher, this reminder of our reliance on yesterday's foresight clearly defines today's responsibility to the farmer who must feed and clothe our nation tomorrow. Yes, a challenge which can be met only with faith in America's agricultural future.

We see this faith reflected in enthusiastic exploration guided by the farm equipment industry and its

suppliers. Such research is not only solving many urgent farm problems today, it is also developing even more effective methods to help tomorrow's farmer serve himself and *all of us* better.

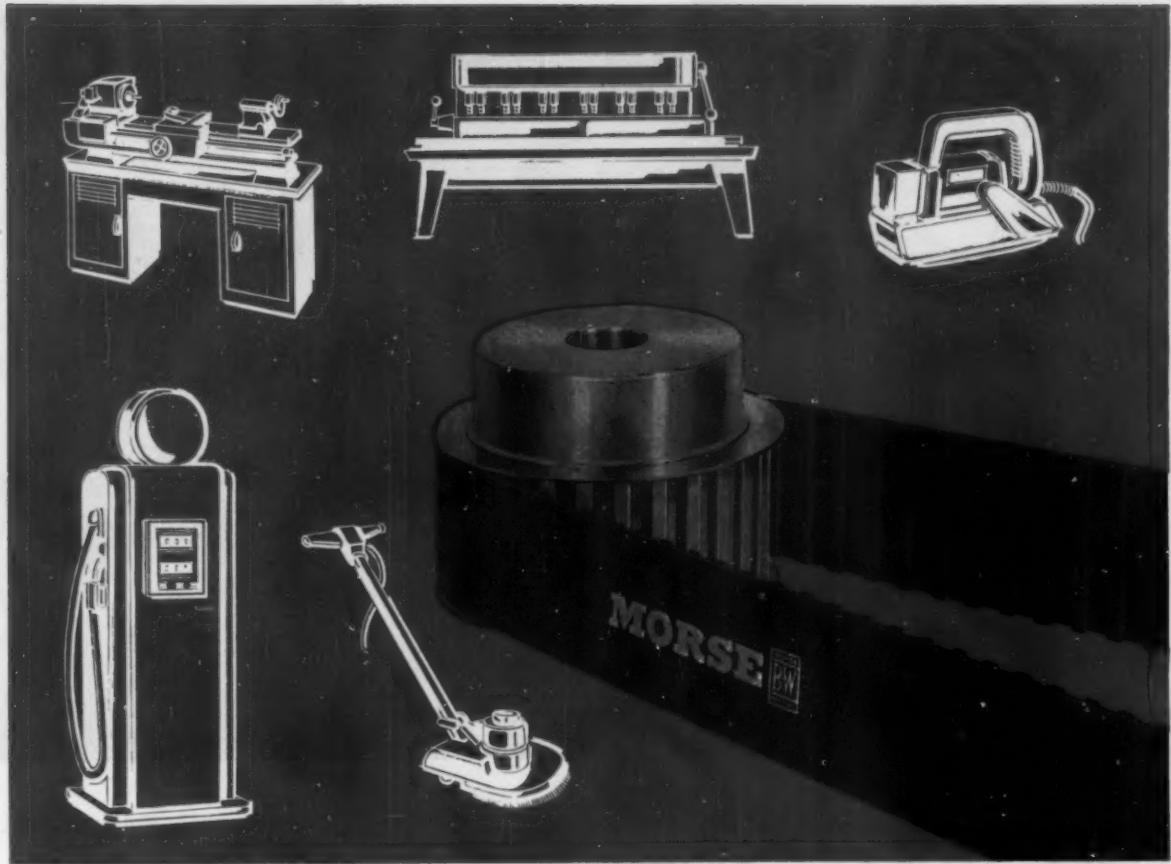
The Ohio Rubber Company, a division of Eagle-Picher, is proud to be a part of this program of continuous achievement. As a major source of press and gauge wheel tires for farm machinery and other molded and extruded rubber products for the farm and for industry, we welcome opportunities to share our diversified experience. *Address inquiries to The Ohio Rubber Company, Willoughby, Ohio.*

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Since 1843

Divisions and principal products . . . CHEMICAL—lead and zinc pigments and oxides, sulphuric acid • CHICAGO VITREOUS CORPORATION—porcelain enamel frits, porcelain enameled steel buildings • FABRICON PRODUCTS—automotive products, plastics, waxed paper and cellophane food wrappers • INSULATION—aluminum combination storm enclosures, mineral wool insulations, diatomaceous earth products • MINING & SMELTING—zinc, lead, germanium, cadmium • OHIO RUBBER COMPANY—molded and extruded rubber products.

The Eagle-Picher Company, General Offices: Cincinnati 1, Ohio

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New! . . . from Morse Chain

Morse "Timing" Belts

Stronger, lighter, slip-proof drives from the longtime leader in power transmission!

EXCLUSIVE!

Only Morse offers all 4 of these basic power transmission drives: Roller Chain, Silent Chain, Hy-Vo Drives, and "Timing" Belts. Your Morse distributor has no ax to grind in favor of one or two types of drives—he gives you a truly impartial analysis of your power transmission problems. Call him today!

Here's why Morse "Timing" Belts are important to you: For the first time, you can get these versatile, job-proved drives from a specialist with years of experience in every phase of mechanical power transmission!

Along with seasoned engineering know-how, Morse gives you the convenience of a complete line to choose from: 0-16,000 FPM; 1/1000 HP to 1,000 HP; in stock or made-to-order drives.

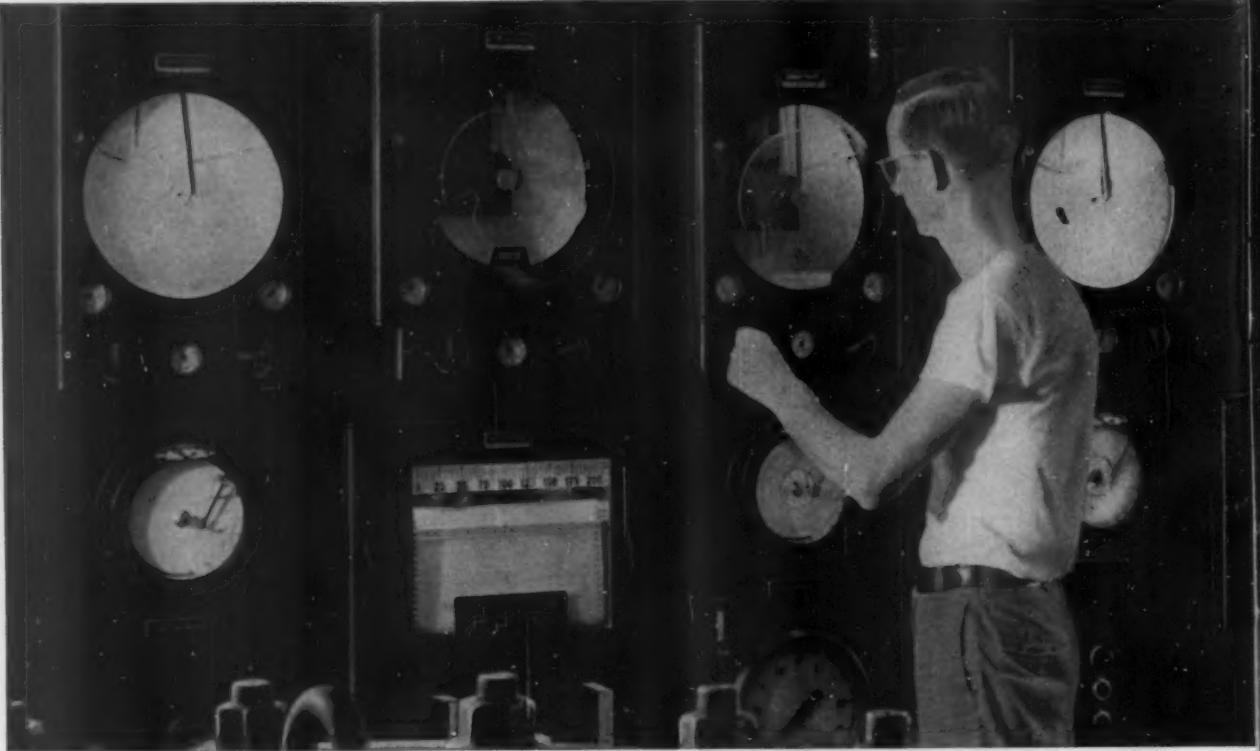
Whether or not you already use timing belts, it will pay you to get all the facts on Morse "Timing" Belts from your local Morse distributor. You'll find him listed in the Yellow Pages under "Power Transmission," or write: **MORSE CHAIN COMPANY, DEPT. 3-107, ITHACA, NEW YORK.** Export Sales: Borg-Warner International, Chicago 3, Illinois.

IN POWER TRANSMISSION
THE TOUGH JOBS COME TO

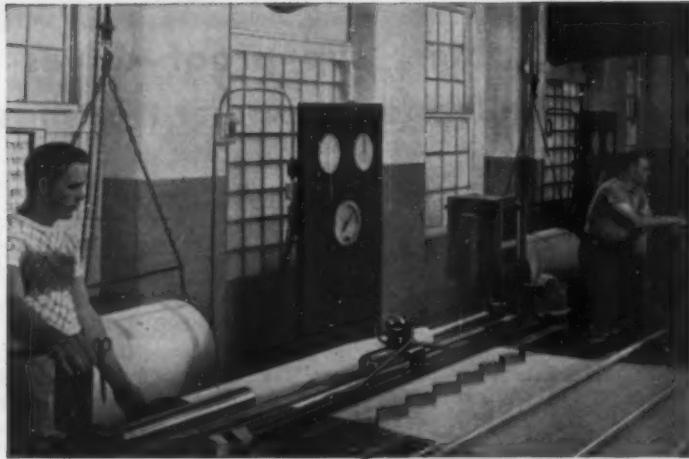
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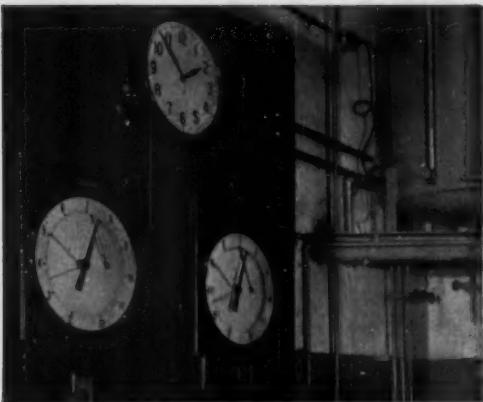
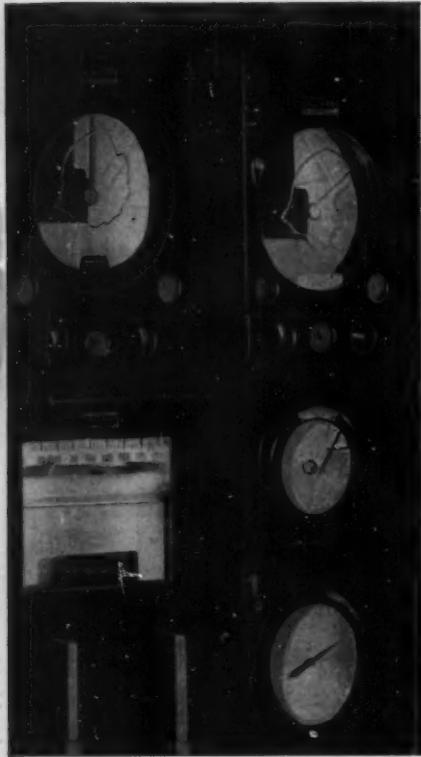
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Increase your output



In Cloth Manufacturing—An immediate 50 percent increase in production was noted at Startex Mills, Startex, S.C., when three cotton slashers were converted from two-cylinder to three-cylinder units and Honeywell instrumentation was added. Dollar savings were realized through lower steam consumption, reduced operating steam pressures and less maintenance because of control of constant speed.



In Water Treatment—Alum usage was cut 95 percent in clarifying turbid water, and the use of other chemicals also decreased after the installation of Honeywell continuous pH measurement and controlled chemical feeding systems at James Lees and Sons Company, Bridgeport, Pa., textile mill.

In Papermaking—Instrumentation increased pulp yield 12 percent, cut cooking time 20 percent when Honeywell controls were added to sulfite digesters of Racquette River Paper Co. In addition, quality has been stepped up and maintained uniformly despite frequent changes in raw materials.

and save "across the board" with HONEYWELL instrumentation

INSTRUMENTATION can give you more profit from your process by cutting your production costs . . . automatically. Honeywell automatic controls can upgrade the quality of your product . . . improve your operating techniques . . . help you make more effective use of your manpower.

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ANACONDA 3/c 500 Mcm 5kv shielded Aerial Cable being pulled at large midwest plant. Cable was installed on steel towers leading from substation to plant facilities.



new power fast —at low cost

Installed Anaconda 5kv Aerial Cable

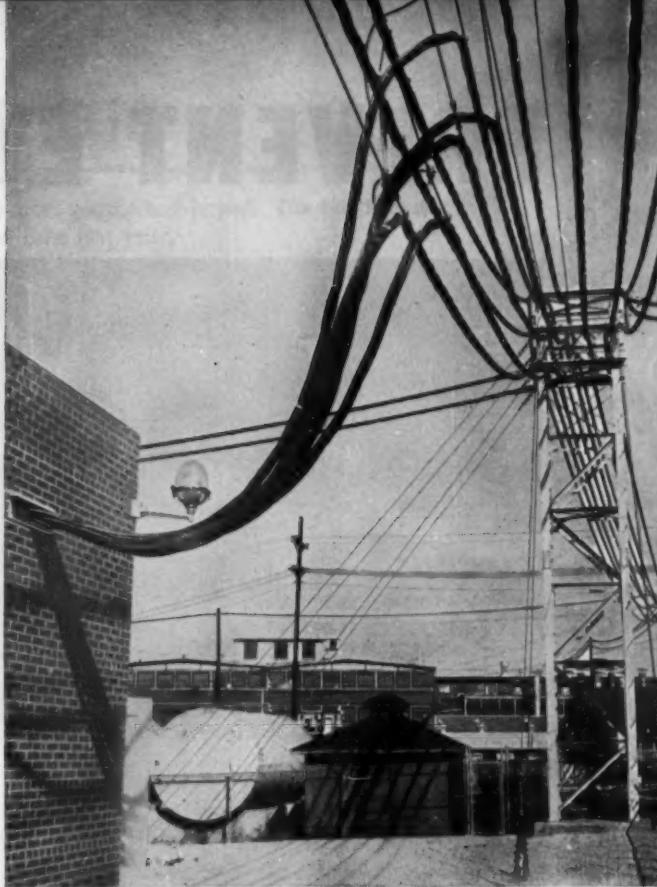
First, this major manufacturer looked at original costs. Then upkeep. And like so many others today, decided on Anaconda Aerial Cable for their new high-voltage distribution system.

Look how it paid off! Easy splicing, tapping and terminating simplified installation . . . reduced time and labor. There was no ditch to dig or fill. No underground pipes or structures to dodge. And no ducts, crossarms or insulators were needed. Their aerial cable is always handy for maintenance. And it's safe, neat.

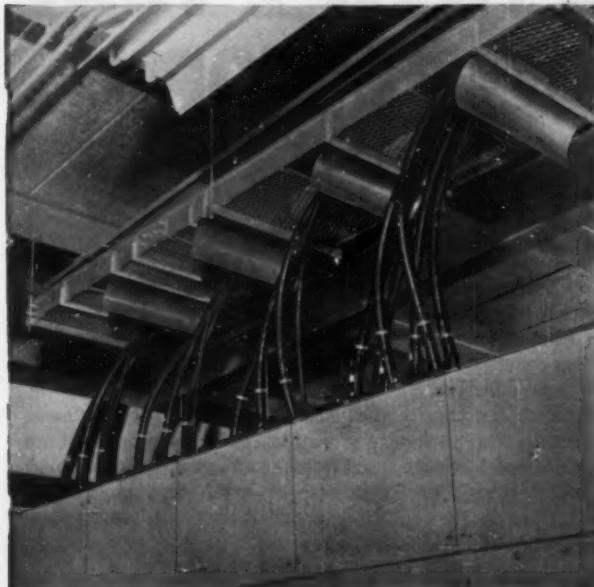
Finest Aerial Cable. Anaconda Aerial Cable is made with tough neoprene jacket that offers highest resistance to weather, corrosive atmosphere, sun. Special Anaconda Type AB butyl insulation gives extra protection against ozone, heat and moisture.

For the full story on aerial cable, call the Man from Anaconda or your nearest Anaconda distributor. Or write: Anaconda Wire & Cable Company, 25 Broadway, New York 4, N. Y.

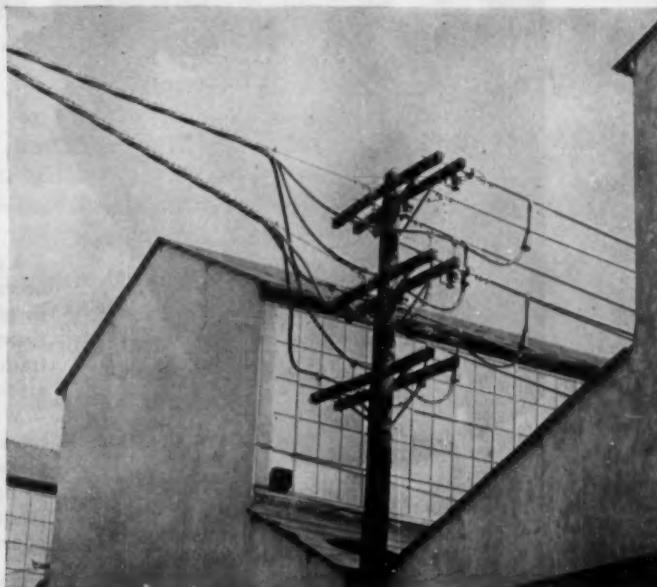
51300



TWELVE CABLES were installed to serve plant. Here, cable drops off messenger to substation entrance.



INSIDE THE SUBSTATION, cables are laid in overhead aluminum racks, then terminated in switch gear.



TWO OF THE 12 CABLES branch off to serve separate building. Aerial cable is terminated at pole structure.

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BUSINESS OUTLOOK

BUSINESS WEEK
OCT. 26, 1957



Business isn't developing as most people had hoped. The fourth quarter now quite definitely looks poorer than last year.

This is not going unnoticed in high places. Before too long you can look for the Federal Reserve, quietly and without official announcement, to begin relaxing credit (page 45). Inflation no longer is the problem.

Wall Street has been paying the price for its over-optimism (although there's no way of knowing if it's all over, even after a 20% drop).

To some extent, this may have caused businessmen to turn cautious.

In any event, it has underlined the softness that is developing in business—and may be forecasting an unhappy period for 1958.

—•—

Business caution is likely to become the catch phrase for describing the shape of our economy over the near term.

There has been some disappointment this year over the failure of consumer demand to grow as fast as productive capacity. The result is some scaling down—or stretching out—of expansion (BW—Sep. 14 '57, p19).

Plant expansion and modernization doesn't stop all at once. Commitments are firm, and about all you can do is brake the progress. Besides, many lines still feel the growth urge (or are unable to slow down for simple but compelling competitive reasons).

Yet, over-all, caution already can be detected. In fact, most builders of machine tools would call "caution" a weasel word.

Orders booked by their industry in September totaled just under \$29-million; the same month a year ago topped \$78-million.

This slowdown in orders for machine tools is no one-month phenomenon. For the nine months, bookings totaled \$445-million against \$736-million last year. (This indicator, by the way, forecasts accurately the direction of business investment, although it exaggerates the swings.)

Production of capital equipment is declining, but not at anything like the rate that new orders may fall off in this period of uncertainty.

Shipments by builders of machine tools, for example, fell slightly behind a year ago in the third quarter. Yet the value of shipments for the nine months reached \$679-million against \$630-million last year.

September's \$65-million of shipments compared with \$71-million for the same month last year.

And the backlog still represents 3.7 months work at September's rate.

Military cutbacks play a part in demand for machinery, of course.

The plant with arms contracts, in buying productive equipment, has to leave more escape hatches than in buying tools for its own use. Hence recent aircraft cuts, for example, have caused machinery cancellations.

These cancellations are hefty in spots (though small beside 1953).

—•—

Auto output won't really begin to get up momentum until about the

BUSINESS OUTLOOK (Continued)

BUSINESS WEEK
OCT. 26, 1957

middle of November. This, however, isn't to be blamed on any lack of demand; it's simply because the changeover ran two weeks behind last year.

This lag will have two rather divergent results:

- Dealers will have more time to move out their remaining 1957 models.
- Output for the year will fall a little below the expected 6.2-million (but will run more than 300,000 over last year's 5.8-million).

Steel operations are beginning to reflect business softening.

For a while, the mills went along producing a little more than they were shipping. They figured it wouldn't hurt to hold a little inventory of sheets for which customers suddenly might start yelling.

Now, however, they seem to be tailoring output closer to new orders.

Production of steel this week is estimated at a little less than 2.1-million tons. A year ago, output was running a bit above 2.4-million.

It now looks as though October would weigh in with just over 9.3-million tons. And November (with a slightly lower operating rate and one less day) probably will be 1957's poorest month at 8.7-million tons.

Thus there has to be a pretty good yearend pickup if the fourth quarter is to top 27-million tons (which still would lag behind 1956 by 16%).

Steel's output for this year probably is going to be the third best on record rather than the second, as was expected earlier. Tonnage seems likely to miss 1956's 115.2-million by as much as 500,000. The record was the 117-million turned out in 1955.

Railway freight traffic not only hasn't improved, it has been disappointing enough so that layoffs have been common on Eastern roads.

This is the time of year when the railroads always move their biggest volume of freight. But the 1957 peak won't be much to shout about.

The Pennsylvania blames slimmer traffic on "the absence of the usual fall upturn in business."

Price averages, as might be expected, are starting to give some evidence of the changed business tone.

The over-all level at wholesale, after the small midsummer bulge (not entirely attributable to steel's wage-price move), has fallen back a little. The index, at 117.6, is about where it was three months ago.

Part of this is due to seasonally declining food prices, of course. But that's not the whole story. Even industrial goods are averaging just a shade lower at wholesale than the early-September peak.

The cost of living has about stopped rising (BW—Sep. 7'57, p204).

The gain in the Consumers' Price Index from August to September was the smallest in almost a year—only one-tenth of a percentage point.

This is calculated to help the Federal Reserve off its hot spot.

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SOUTHBURY, CONN.—Now hear this! Whenever you sink your teeth into a succulent Rock Cornish hen, roasted to a golden brown, you're partaking of a thoroughbred.

Or, in the words of famed stage and TV entertainer Victor Borge, "a thoroughbred mongrel." And Mr. Borge should know: on his ViBo Farms here, some 40,000 to 50,000 of these delectable fowl are processed every week for shipment to markets from coast to coast. Says the noted pianist, humorist and fowl fancier:

"On the Rock side, the Rock Cornish pullet comes from the Barred Plymouth Rock fowl. On the Cornish side, the English county of Cornwall



This view of the ViBo Farms Rock Cornish pullets processing plant also shows construction work under way on the new plant addition. Total number of birds now processed weekly: up to 40,000.

enters in, but only as a stopover point in the line of descent. The progenitor of the Cornish game fowl was the fighting cock of Malaya, a noble if aggressive bird. Nobody knows quite how he traveled from Malaya to Cornwall."

Stran-Steel for Savings

Back in 1952, the entertainer took over what was then a private pheasant preserve, christened it "ViBo Farms"—and found himself in the bird business. His first commercial poultry venture was pheasants, but then he turned to Rock Cornish hens exclusively. A serious business it is, too, for raising and processing the young chicks takes the most patient and expert of care, plus the latest in modern housing, packing and freezing facilities.

Volume has grown prodigiously, and the buildings comprising the enterprise have multiplied—the main one, of course, being the processing plant itself. This handsome structure—spacious, functionally laid out and spotlessly clean—is a 40' x 120' Stran-Steel Rigid Frame building, a National Steel product.

"We found the Stran-Steel Rigid Frame building gave us not only the lowest priced structure, but the structure best for our purposes," says Allan Altman, general manager of

ViBo Farms. "Delivery was prompt and construction was on schedule." And a sizable addition to the main plant is now being constructed—Stran-Steel, naturally.

An innovation in Stran-Steel buildings is the siding of vivid blue translucent Stran-Lite—a plastic panel widely used in Stran-Steel buildings as skylights (as it is also in the ViBo building). Mr. Altman finds this product complements the structure, provides better illumination and sharply reduces heating costs.

"Stran-Steel Rigid Frame buildings," Mr. Altman further states, "will figure largely in our future expansion plans, too—including the building of more of our own brooder houses, plus added production facilities at ViBo and separate new plants, in the Midwest and far West, to service our customers efficiently."

National's Role

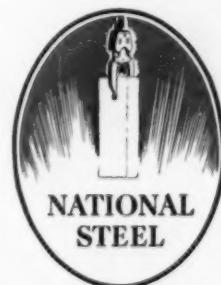
Stran-Steel buildings—for the farm, for industry, for commerce and for education—are typical of the products developed by National Steel to help serve America better. These products reflect National Steel's unchanging policy of producing ever better



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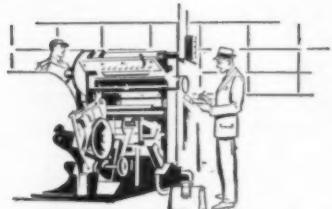
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After Sputnik . . .

- ... Coordination with British on missiles and the Middle East is a first response to Russian achievement (below)
- ... Meanwhile, the economy program continues to cramp defense contractors (page 43)
- ... Business uncertainties show up in a gyrating stock market (page 163)
- ... But FRB is not yet ready to relax tight money (page 45)
- ... After three weeks, there are still no signs of the really fresh attitudes needed (The Trend, page 204)

Washington's First Steps

The first beginnings of a try by the United States and the Western Allies to regain parity with the Soviet Union in weapons are taking shape.

The best evidence in Washington still is that any new policies invoked by Pres. Eisenhower will call more for encouragement and cooperation than for a crash program of effort and spending. It won't be possible to gauge the post-Sputnik effort in dollars; the defense budget is still nailed at \$38-billion.

But the beginnings of change are discernible. Pres. Eisenhower started a series of speeches billed to bolster public confidence in the defense program, the domestic economy, and scientific achievement. At the same time, British Prime Minister Harold Macmillan flew from London to argue strenuously for a dynamic policy of interchanging scientists, ideas, and development and production of modern weapons. Macmillan and his unusually expert entourage are confronting Pres. Eisenhower with a large order—some sort of mutual system of military defense such as the two countries pasted together in World War II.

I. Fresh Air From London

In action, Macmillan's ideas are hardly breathtaking. But they are pushing the Administration off what critics attack as its dead center of indifference. Macmillan's talks at the White House have encouraged government scientists

and the uniformed chiefs of the military services to push some, too.

Macmillan seems to have brought to Washington a fresh perspective. Up till now, many Administration leaders, asked about the outlook for lifting the military budget ceiling and stepping up defense expenditures, have offered a lecture on financial stability.

- **Aid to Morale**—Still, many military men are optimistic about the future of projects now being hurt by the economy drive (page 43)—notably in research and development. They're not looking for a change overnight, however, nor do they expect a big boost in funds.

"Our morale has gone up just on the expectation that things are going to open up," says a Navy scientist. "In the past six months, they've been tearing out extra telephones around here, restricting our travel money, not allowing us to hire new people. Maybe this sort of thing will change now."

An Air Force general puts it this way: "I'm more optimistic about relief from the budget squeeze now than I was before Sputnik. We talk about 'B.S.' before Sputnik, and 'A.S.' after Sputnik, in our shop. Those who have ridiculed military research in the past are going to have to look at things anew."

- **New Tack**—What these officials are talking about is a change in attitude in high places. They put much stock in Defense Secy. McElroy's remark about favoring "pretty speculative, innovative kind of research, rather than strictly development." They're hoping



that this kind of thinking will be reflected in specific action.

One adviser to the President summed it up this way: "Sputnik has been an alarm bell which has waked us up. The British have reacted very fast, for which

we can thank them. We're beginning to wake up too. We need to unite all our resources, and political strength of the free world."

II. What May Result

The meeting between Eisenhower and Macmillan was aimed at trying to rebuild something like the Anglo-American Alliance that was ruptured by Suez and subsequent events.

The President and the Prime Minister agreed that Sputnik and Russian advances in rocketry were a less immediate challenge than the deepening Middle East crisis. In the Middle East, trouble was precipitated by Russian infiltration of Egypt and Syria; it is now being fanned violently by Khrushchev's threats against Turkey.

Last fall, the British insisted on the need to use force against Nasser to check the spread of Soviet influence in the oil-rich area. This time, they have reversed their policy. Determined to bury the memory of Suez, they are approaching the problem with open and questioning minds.

The Eisenhower-Macmillan review of Middle Eastern policy will lead to close coordination of Anglo-American actions in the area. In time, it could also lead to a common Middle East policy.

In the weeks ahead, these actions on the defense front could also flow from the talks:

- Closer Anglo-American coordination of military research and development. Some moves are certain, including an Administration request to Congress to remove the ban on sharing nuclear weapons research. Actual joint research programs are possible at some stage.

- Moves toward eventual joint weapons production, though they would be complicated to work out.

- Closer cooperation by NATO members on over-all economic policies.

Eisenhower called for more teamwork in military research and development last weekend during the White House dinner for Queen Elizabeth. Secy. of State Dulles has specifically endorsed amendment of the McMahon Act to permit sharing American nuclear weapons secrets with the British.

- Macmillan's Pitch—Macmillan wants to go beyond the mere exchange of information and research on weapons development, at least to joint research programs—possibly coordinated by a joint command in Washington. He points out that already there has been a pretty full exchange of information between Washington and London in all fields except the military atom.

Only last spring, Duncan Sandys arranged with former Defense Secy. Charles Wilson for a big step-up in

U.S.-British exchange of information on missile development. He also was promised U.S. intermediate-range ballistic missiles as soon as they were in production. That would free some British resources for other purposes.

But Macmillan says there still is a lot of waste and duplication in the weapons programs on both sides. This will continue, he thinks, as long as military research and development are on a strictly national basis.

- **January Start**—At the Pentagon, however, hardly anyone expects that important changes—if there are to be any—will be made before January. The Senate Armed Services Preparedness Subcommittee is expected to start a public investigation of the missile program. A staff study is now laying the groundwork.

Weeks before Sputnik, the Pentagon had hiked its estimates of what would be available for missile, aircraft, and R&D spending within the \$38-billion expenditure ceiling. Missile production was figured at \$2.5-billion—up \$500-million from the initial estimate of fiscal 1958 spending; aircraft went to \$7.1-billion, up from the \$6.7-billion original estimate; and R&D spending for the year was refigured at \$1.6-billion, up \$100-million from the estimate made 10 months ago. At the same time, cost estimates for manpower, operations and maintenance, construction, and other types of procurement were reduced to offset the increases.

III. What We're Doing Now

Meanwhile, the post-Sputnik military program showed this mixed pattern:

- The Air Force said it is placing \$183-million worth of Titan ICBM contracts—with Western Electric Co. for guidance gear, Aerojet-General Corp. for rocket engines, and Remington Rand Univac for computers. Presumably, the contractors have now moved into production.

- Defense Secy. McElroy—for dramatic effect—ordered the military services to submit weekly progress reports on ballistic missile projects to him personally, so he can take quick action on bottlenecks. At the same time, he said he is approving all overtime requests on ballistic missile work.

- Maj. Gen. Bernard Schriever, who commands Air Force ballistic development in the field, was relieved of responsibility over development of an anti-missile missile and a reconnaissance space satellite. The purpose: to allow him to put in full time on the Thor IRBM and Atlas and Titan ICBM.

- The Defense Dept. issued a new warning to the services to "get their programs down to within expenditure ceilings." A top Pentagon budget official told BUSINESS WEEK this week

that military spending in fiscal 1958 will come close to \$38-billion and that expenditures in fiscal 1959 "will be about the same."

- The Air Force continues working out new production stretchouts with major contractors as a means of staying within the budget ceiling. The contractors say they cannot stick to current production schedules under recently imposed limitations on monthly payments (page 43).

- The Navy is conducting similar talks with its big contractors. The first big cut: cancellation of \$21-million worth of contracts with Lockheed Aircraft Corp. for production of 100 jet trainers and 15 radar warning aircraft.

- The Pentagon disclosed that former Defense Secy. Wilson issued an order two months ago that in effect reduces proposed research and development spending at least 10% (or \$170-million) this year. The order requires the military services to use at least 10% of R&D funds to pay for prototype testing of new weapons—an expenditure normally financed out of production and procurement funds. At midweek, the order had not been revoked.

In Congress, both Republicans and Democrats continue to tee off at Administration defense policy. Democratic Majority Leader Lyndon B. Johnson spoke of a possible need for a "thorough overhaul from top to bottom . . . [in] our whole defense structure."

- **Turkish Eyes**—The newest shocker came this week when Aviation Week, a McGraw-Hill publication, revealed in detail that powerful U.S. long-range radar units based in Turkey have tracked Russian strategic ballistic missile firings for two years (BW—Aug. 31 '57, p.30).

The magazine said Soviet knowledge of the U.S. installations is possibly a reason for Russia's current military and political pressure on the Turks. The radar system, operated for the military by General Electric Co., detects and tracks missile launches from major Russian missile test firing centers in the Ukraine to two impact areas—a 1,000-mile range ending near the Afghan border and a 4,000-mile-plus range terminating past Vladivostok in the Pacific.

In addition to the Turkish radar sites, Aviation Week reports other possible U.S. approaches for obtaining Soviet missile data from outside Russian borders. One is "Project Tom Thumb," an Air Force unit developed by Hycon Mfg. Co., which can detect turbojet, ramjet, and rocket engines at extremely long ranges, gathering detailed data on the engines' performance. Another is through the use of optical equipment and spectrometry to identify missiles and sonic planes in flight through examination of air disturbance patterns.



Jobless defense workers sign up for unemployment benefits. Lines grow longer week by week.

When Pentagon Swings Its Ax

Cutbacks in Pentagon's rate of spending leave contractors and their suppliers guessing about how much financing they'll need—and whether the banks will let them borrow.

Through the mails last week came a letter from a high Air Force procurement officer to an East Coast defense contractor who manufactures electronic systems for missiles and airplanes.

"In view of changes in fiscal policy," the letter said, ". . . checks will not be drawn to meet invoices on the aforementioned contracts before Dec. 31, 1957." The letter added, in effect: You won't get a cent for your work on these missile and airplane contracts before mid-January.

In the last week, the contractor has talked several times with the Air Force procurement officer. The upshot of their talks: The contractor shouldn't put too much faith in the suggestion that he'll be paid for his work next January; in fact, he shouldn't bank on being paid until the middle of next year.

"That's only part of it," says the contractor. "On another set of contracts, each month's progress payments are to be limited. The Air Force announced that at the end of September. But we still don't know what the limits are to be, and we don't have the slightest hint of when the amounts held over from month to month will eventually be paid."

• **Meeting the Payroll**—How do you run a business under these conditions? More immediately, more specifically, how do you meet next week's payroll?

You quit hiring; the East Coast contractor ceased doing that several months

ago. You reduce the size of the payroll; the contractor has lately dropped 200 employees, some 12% of his work force.

For the longer haul you plainly must borrow.

"But how," asks the contractor, "can I go to a bank and ask for credit? The bank will want to know when I'll be paid. If I tell them I just don't know—why, they'd have every right to toss me out into the street."

Yet if the squeeze continues—in both limited and long-delayed payments—much beyond next January, this contractor will need almost to double his \$5-million line of credit. Beyond his own needs will be those of his subcontractors. Already he has warned them that they will have to bear a share of the credit burden. And many of them, he is convinced, haven't a chance of raising the money, even if they were able to tell the banks when they will be paid. The only alternative is to cut the rate of production.

I. The Price of Economy

All over the country, defense contractors are facing these problems of attempting to operate their companies in the midst of a rain of directives, orders, and counterorders that has poured in constantly increasing volume from the Pentagon and particularly from the Air Force.

The storm began in the spring when

it became plain that military spending in fiscal 1957 would wind up \$2.4-billion over the year's estimate. It grew in fury through the summer as the Administration's spending edged nearer and nearer the \$275-billion limit on the national debt. Production schedules for most of the Air Force's major contracts were stretched; bills were lopped further by outright cancellation of other contracts. By early fall came the Air Force's discovery that it was spending at a rate almost \$1-billion greater than its \$18-billion budget for the whole of fiscal 1958.

Since that discovery, the storm has been heavier. It has also become murkier. There have been relatively few clear-cut contract cancellations. The reason, Air Force procurement officers have told contractors, is that the Defense Dept. simply cannot afford to make further cancellations. The immediate cost of terminating a contract is a lot higher than that of stretching production and delivery dates or of clamping strict limits on contractors' payments.

• **Slowdown**—This latter move has caused the greatest anguish among defense contractors. The payments limitation order went out to the Air Force's 42 major suppliers. It asked them to let the Air Force know quickly the probable effects of the limitation on each contract's production schedule and, most importantly, on each company's finances. It told the contractors the Air Force would balance the cut in spending against the damage the limited payments might do to the contractors' financial stability, and would let them know later the limits that would be imposed on them.

This order was one of former Defense



Hard-hit Long Island (N. Y.) workers seek relief pay.

Secy. Wilson's last announcements before he quit the Pentagon. He said he "hoped" its effect wouldn't be to slow further the delivery of airplanes to the Air Force. But this week, one major West Coast airplane builder said Air Force procurement officers told the company it could operate within the monthly spending limit any way it chose: by cutting expenses, by borrowing—or by slowing its airplane production lines.

For all the delay, and despite the impact of Russia's satellite, nobody is willing to gamble on the Air Force's reconsidering its directive or rescinding it. So defense contractors have started hacking at costs again.

II. Cutting Costs

In plain numbers, the biggest cuts have come at North American Aviation, Inc.'s West Coast plants. Since the start of the year, 19,000 employees have been laid off; another 2,000 will be dropped before the end of the year. North American's sales in its last fiscal year were \$1.2-billion; next fiscal year they're expected to be down to \$700-million. The company's big blow—an early one in this year's round of cutbacks—was cancellation of its \$650-million Navaho missile contract (BW Jul. 20 '57, p28).

Lockheed Aircraft Corp., which has trimmed 4,000 from its payroll in the last four months, this week lost a \$21-million Navy contract for jet trainers and radar warning aircraft. Douglas Aircraft Co., with 80,000 employees at the beginning of October, expects to slice its payroll by 4,000 before the end of the year.

Farther up the West Coast, Boeing Airplane Co. is watching its pennies. It has told its employees: "No chewing

the fat on the telephones" (it seeks to save \$250,000 a year on its phone bill); "switch out the lights" (it seeks a \$1,000 a month electricity bill saving). It has canceled its advertising in all but one magazine for the month of December. And by the end of this month, there'll be 1,250 fewer names on its payroll.

III. More Trouble Ahead

These payroll cuts and plant economies are only stop gaps. Almost all the major contractors will have to borrow for the longer haul. Before they can guess how much they will need, they must have the answers to these questions:

- When will the government hand over the money it now plans to withhold from their monthly payments?
- Will the Pentagon change its rules and permit contractors to add interest costs to the total cost of their contracts?
- Will the Administration's money managers help the contractors to get loans from the nation's commercial banks?
- How much of a cash reduction will the monthly payments limitation represent?
- **Over-All Need**—Without the answers, few will guess the needs of their own companies. But they eagerly estimate their industry's collective needs.

Some claim the aircraft industry and all its related suppliers—electronics makers, metalworking plants, and so on—will have to borrow a total of \$2-billion to \$2.5-billion to get through the next year and to maintain deliveries at anything like present schedules. Other estimates range from there down to \$750-million, depending on further guesses at how far production schedules can reasonably be slowed.

Some companies, at least, couldn't afford the credit, even if it does prove to be available. The Aircraft Industries Assn. has estimated that the true cost of money to most airplane builders is 5.6%. Unless the Pentagon permits the contractors to add interest rates to their contract costs, few in the industry will want to keep to present production schedules at the price of steady and severe losses.

IV. Long Island Case

Today, the effects of the last six months of defense cutbacks and contract cancellations are beginning to filter down into scores of communities around the nation. The spending problems that built up first in the Pentagon, next in the executive offices of the contractors, have spread out now to the whole economy of some of these communities: to the appliance stores, supermarkets, gas stations, even the beauty parlors.

Right under the eyes of Wall Street, which will be called upon for much of the aid the contractors need, is Long Island—one of the hardest-hit of these communities.

• **Defense-Oriented**—More than half of Long Island's 102,500 industrial workers are directly involved in defense work—in the airplane and electronics industries. Included among the area's largest employers are Republic Aviation Corp., Grumman Aircraft Engineering Corp., Liberty Products Corp., Sperry Gyroscope Div. of Sperry Rand Corp., Fairchild Camera & Instrument Corp.

Defense contracts provide 75% or more of the business of almost all these companies. Since spring, they have dropped almost 9,000 employees.

• **Republic Aviation**—For Republic, there's practically nothing to soften the blow of defense cutbacks. A fraction less than 99% of its business is in defense contracts; its defense work is for one customer, the Air Force; its product is one airplane, the F-105 fighter-bomber.

Last week, Republic laid off 2,300 employees. That brought to 6,500 the number dropped since March, reduced Republic's work force to about 10,000. The layoffs have reached men with 15 to 17 years of seniority in some parts of the plant.

Before last week's layoff, some 2,600 of the men dropped from Republic had sought aid from their union, the International Assn. of Machinists. The union found jobs for 75% of these—but many had to take pay cuts of up to 60¢ an hour. Now the union's placement bureau is worried.

"The latest bunch of 2,300 will be much harder to place. The subcon-

tractors and job-shops are laying off as well as the prime contractors," says Justin Ostro, head of IAM's Republic Lodge.

• **And Grumman**—Five miles away, across new shopping centers and tracts of development homes is Grumman, where cutbacks and cancellations have not yet hit so hard.

At Grumman, only 500 employees

have been laid off since spring. Some 250 of these were draftsmen; they were offered the choice of being laid off or of taking night-shift jobs on the riveting line in the plant. Not one of them chose to stay with Grumman, and now they're seeking jobs at drawing boards in other Long Island plants—and having a hard time.

• **Lost Business**—Outside the defense

plants, the early effects of the layoffs are already visible. Next to the Republic plant two gas stations have gone out of business, the restaurant across the street is in trouble, the local florist's sales have sunk sharply.

In one large shopping center, an appliance dealer who earlier this year grossed \$2,000 a day is now selling only \$600 worth of goods a day.

No Shifting to Ease—Yet

The Fed admits a decline in business confidence and some deflation. But it isn't ready yet to loosen credit.

Tight money was being widely blamed this week as a major factor in the reversal of business sentiment that is reflected in the stock market. However, the monetary managers in Washington still aren't budging in public from the cautious "wait and see" policy they have taken (BW—Oct. 12 '57, p46).

Federal Reserve officials acknowledge that the emergence of deflationary elements and the worsening of business confidence cannot be ignored. At the same time, they insist that basic conditions, still strong, don't yet call for an immediate shift to easier money.

Though the Fed gave no hint in public that it would change policy, officials privately are deeply concerned about the sudden wave of pessimism in the financial community and the continuing decrease in business borrowing. And this concern will probably show up in a gradual decline in interest rates.

• **Healthy Correction**—The Fed's public attitude was summed up by Alfred Hayes, president of the New York Fed, who last week termed the change of sentiment "a healthy development, if held within reasonable limits, after the rampant optimism of a few weeks ago."

Hayes, who was clearly speaking for the entire Federal Reserve System, declared that the money managers are attempting to "avoid overstaying" the boom but that they are equally anxious to "avoid premature ease of credit."

• **Shift**—This version of "wait and see" is the first acknowledgement by a Federal Reserve official that the money managers are thinking in terms of a shift. The Fed has not yet moved in any significant way, but Hayes' comments suggest that a change may not be far off.

The New York bank has been generally less concerned about inflation than the Fed in Washington. Last August, the New York Fed delayed

raising its discount rate to 3 1/2% after the board in Washington had approved the hike for the other regional Feds. Its officers felt the economic situation did not justify any intensification of credit tightness. They finally went along mainly because the disparity had created technical problems (BW—Aug. 17 '57, p28).

When Washington took a "wait and see" policy, which brought it closer to the New York viewpoint, the disagreement appeared to be patched up. But officials at the New York bank are saying now that the stock market drop has gone beyond healthy limits.

• **New Point of View**—In this situation, New York would prefer an easier

Market Snaps Back

Wall Street this week rebounded from a classic selling climax with an equally classic post-climactic buying surge (see page 163).

The big sell-off started in late July and continued almost unimpeded until this week, slashing the industrials' average by over 20%. This represented the sharpest decline since 1946, the fastest since 1936. The low point was reached this Tuesday, when over 5-million shares were traded, the biggest total since the "heart attack" market of September, 1955.

But Tuesday was also the turning point, for the steep declines touched in the across-the-board selling climax sparked a wave of institutional buying.

On Wednesday, institutional and investor demand led to a sharp rebound in stock prices, the sharpest in fact since November, 1929. Technically, a substantial rally had been long overdue, but there is little doubt that it was more than a purely technical advance. Wall Street was also betting that the Eisenhower Administration was getting set to end its economy drive, and that the Federal Reserve would be easing its tight money policy.

policy than the Fed is following. As one high New York Fed official put it: "It isn't a question of whether the stock market is forecasting a downturn. The stock market drop, by itself, has been violent enough to bring about a definite change in business spending plans. We should not disregard this in making policy."

The New York Fed is not demanding an immediate cut in the discount rate. But such a move would be a logical development after open market operations had made credit more readily available than it has been to date.

As part of its "wait and see" policy, the Fed is supplying credit whenever it deems it necessary to prevent further tightening. But it has not yet made any move actually to ease the squeeze. That is the step that the New York bank now wants to make.

• **Under Pressure**—Washington officials contend that the New York bank is too sensitive to the fluctuations of Wall Street. They see no need for a sharp shift until the nation as a whole reflects the kind of uncertainty and nervousness that is being felt in Wall Street. Moreover, Federal Reserve Chmn. William McC. Martin is on vacation; until his return, no important change is probable.

Nevertheless, the Fed faces mounting pressure from many quarters. A White House aide admitted that he was worried by "the disruptive and disturbing drop" in the stock market, and he called Hayes' speech "ill-timed." Wall Street investment bankers who have been the Fed's firmest supporters are saying that credit tightness has now been pushed too far.

The change in sentiment, and the strong pressure that's building up, may cause the Fed to shift its tactics. In fact, many economists hold that the longer it delays a move toward ease, the further it may have to go to help stabilize the money market. In 1953, for example, it first tried open market operations, lowering reserve requirements. It would like to avoid such a dramatic move this time. When it turns to a new course, it will probably first use open market operations and then a change in the discount rate.



A LA PARIS: At Neiman-Marcus, Dallas specialty store, exhibits of "French Fortnight" include replica of Dior's boutique.



FASHION SHOW: Paris' "relaxed look" gowns at Neiman-Marcus sell for \$900 to \$3,000. This one is by Jean Desses.

THE SACK: Controversial style is sported by two French mannequins at Texas Fair.

Paris' "Sack" Brings

Neiman-Marcus touts new Paris style in anniversary jamboree. Question: Will the U. S. buy it?

France invaded Texas last week—through the kind offices of Neiman-Marcus specialty store and the French government.

"The French Fortnight," part of Neiman-Marcus' 50th birthday celebration, represents the biggest splash in the famous Dallas store's history. Highlight is the fashion show in the store's Zodaic Room every afternoon, when

French mannequins pirouette their way through some 15 Paris models (usually Neiman-Marcus buys only six to eight). But everyone in town is in on the event. Art theaters feature French films. The Dallas Museum of Fine Arts has a display of Toulouse-Lautrec. The Dallas Memorial Auditorium is showing off 30 huge tapestries. The local dealer is exhibiting 25 white Renault cars, made for the occasion.

• **Big Names**—The fashions shown feature the big names in the world of haute couture: Dior, Balmain, Patou, Guy Laroche—you name 'em; Neiman-



Fireworks to Fashion

Marcus has 'em. No less a personage than Herve Alphand, French ambassador to the U.S., opened the inaugural event. The presence also of the mayor of Dijon; of Mme. Paul Auriol, daughter-in-law of the former President of France; two famous chefs, Maurice Carrere of Maxim's and Andre Papion of the Liberte; novelists, milliners, painters—all tried to turn Dallas overnight into a second capital of France. A special Paris edition of the Dallas Times-Herald hailed Stanley Marcus, president, as "the premier in the French crisis."

Stanley Marcus himself dreamed up the jamboree after seeing a similar event in Scandinavia. Three years ago, he suggested such a project to the French government—which fell before the idea could take shape. This time, the co-sponsor, the French Comite Permanent des Foires et Manifestations Economiques a l'Etranger, came through. France was anxious to make a personal appearance in the rich, fast-growing market of the U.S. Southwest.

Since its founding, Neiman-Marcus has ardently promoted French fashions, Marcus explains. For France was, and

is still, "the creative influence that all others follow."

That is because France, and particularly Paris, has everything: the artisan textile makers, who don't blink at selling a manufacturer 5 yd. of a cloth; glove makers, hat makers, shoemakers, dressmakers, designers, artists. The rich, highly individualistic customers come to Paris, too, to work, to play, to spend money.

The great gift of French couture, argues Marcus, is its freedom—the artists' willingness to experiment, to gamble on an idea that would terrify a



CUSTOMERS of famous Texas store shop against a backdrop of French fabric displays and posters by French artists.



FRENCH MAYOR le Chanoine Felix Adrien Kir of Dijon arrives at Love Field on a special Air France flight.



DALLAS MAYOR Robert Thornton (right) is guest at banquet for French ambassador.



FRENCH MANNEQUINS go to fair, meet Texas cowboys, help with livestock judging.



TWO FAMOUS fashion centers strut their stuff as French "sack" meets Texas boots.

mass producer, who must please many.

In fact, with this current season, Paris designers have taken a gamble that may—or may not—have repercussions in every town of the U.S.

"Sacks or Sex"

The combustible item that has set the fashion world on fire is the design called the chemise. Less reverently, it has been dubbed the bag or sack. Paris designers tried it out tentatively over two years ago—and versions of it have been around even longer. At the Paris showing this fall, practically everyone had some variant of the straight, unfitted or loosely fitted tunic. As far as Paris is concerned, the sack has arrived.

Neiman-Marcus itself says that what it calls the "relaxed look" turns up in some 30% of its current Paris purchases. Both Stanley and Lawrence Marcus (senior vice-president) are convinced that this is the big fashion news.

- **First Reactions**—Early sketches in the daily press brought cries of outrage from the woman in the street—and cries of outright pain from her husband. The straight, floppy, loosely draped garment looked like something from the flapper days of the 1920s—a period many women would rather forget.

Nevertheless stores that brought out early copies found themselves doubling their reorders. It is a hardy retailer who has dared to ignore the chemise.

"Yes, we do have it, and we are selling it," says an executive of Bloomingdale Bros. department store. "It does not have wide appeal right now, in the form it takes right now. Mainly it is the smarter women who go for it."

But this executive personally feels that, come spring and summer, the sack will be all over the fashion lot. "It's loose and comfortable," he explains. "And you don't need a lot of foundation garment underneath—it's a good hot-weather style" and the simplicity of the "bag" calls for a riot of new, colorful fabrics.

Bergdorf-Goodman, swank specialty shop, reports cautiously that everyone wants to see it. "Whether they say, 'it's for me' is another thing. It takes a bit of wearing," this source reports. "The wearer should be a girl with plenty of chic, if she isn't, it really is a bag."

Lord & Taylor, with equal caution, says, "We like it if it is handled well."

Fashion arbiters for the most part back the chemise heart and soul. "The consumer is going to react favorably," predicts Esther Lyman of Harper's Bazaar. "It is comfortable, and it is slenderizing. It is selling very well—where it is shown."

- **Split Feelings**—That last sentence contains the catch. Store buyers, notoriously scared and conservative, are

reluctant to go out on a limb. Manufacturers, too, don't want to get caught out if the public turns thumbs down.

David Schwartz, president of Jonathan Logan, reflects something of this schizophrenia. "It's terrific," he says of the sack, "but not the way they are making it now." Immediately he adds, "It'll never sell."

In a way, his split feeling about a terrific number that "they" will never buy reflects at a practical level what Tobe, of Tobe & Associates, fashion consultant to many big retailers, has to say. Tobe is a staunch adherent of the chemise. Her explanation of why the sack is important sounds like a paradox but underscores a basic shift in the whole concept of fashion.

First, says Tobe, the new styles are fashion's version of the avant garde movement that appears in literature, music, art, or philosophy.

More important, the sack aims at youth—and youth, as many marketers are by now very much aware, is what the U.S. has plenty of today (page 84). Today, the force of the youth market, and the appearance of new young designers such as Givenchy and Laroche, have returned fashion to the young.

- **Young Market**—Even before Paris gave the loose tunic its all-out endorsement this fall, U.S. houses such as Traina-Norwell and Larry Aldrich had successfully sold versions of it, Tobe reports.

She upbraids designers who have shunned the sack precisely because middle-income girls and women have accepted it: The old trickle-down theory of fashion—from the elite to the masses—won't hold water any more.

One reason is that custom-made clothes have become so costly that even the wealthy sheer off from the radical style, settle for beautiful, but undated clothes. The wealthy are no longer the innovators.

Theory is that the young are ready to take over the role. "The enormous growth of fashion education, plus the great number of working women who spend their own money on whatever they like, has created a buying public that is completely independent of the social acceptance of fashion," says Tobe. In their new-found independence, they don't have to accept a style they don't like (BW—May 4 '57, p62). If a young woman doesn't want sacks, Tobe sums up, she can buy sex—for the designers are offering plenty of diversity to choose from.

It is this freedom of choice that may prevent universal acceptance of the sack. Even those who buy the idea don't view the sack as a revolution on the scale of the 1948 New Look upheaval. But it will still be the most important trend—because it fits into the scheme and living pattern of youth.

How to Move a Quarter-Billion

Getting \$265-million securities to a new home has more twists than you'd ever think of, State Mutual Life discovers.

If you're thinking of moving a quarter of a billion dollars across town, be sure to call out the fire department and have your car battery charged up full—and don't forget to get police clearance for the milk wagon driver.

That's the advice of the people at State Mutual Life Assurance Co. of America, and they should know. It covers some of the things they had to plan for—and some that sprang at them unawares—when they transferred about \$265-million worth of securities, around half of them negotiable, across Worcester, Mass., last weekend. The 12-hour moving job—part of which you see in the picture—took the securities from State Mutual's old and cramped office building downtown to its new home two miles away in the outskirts.

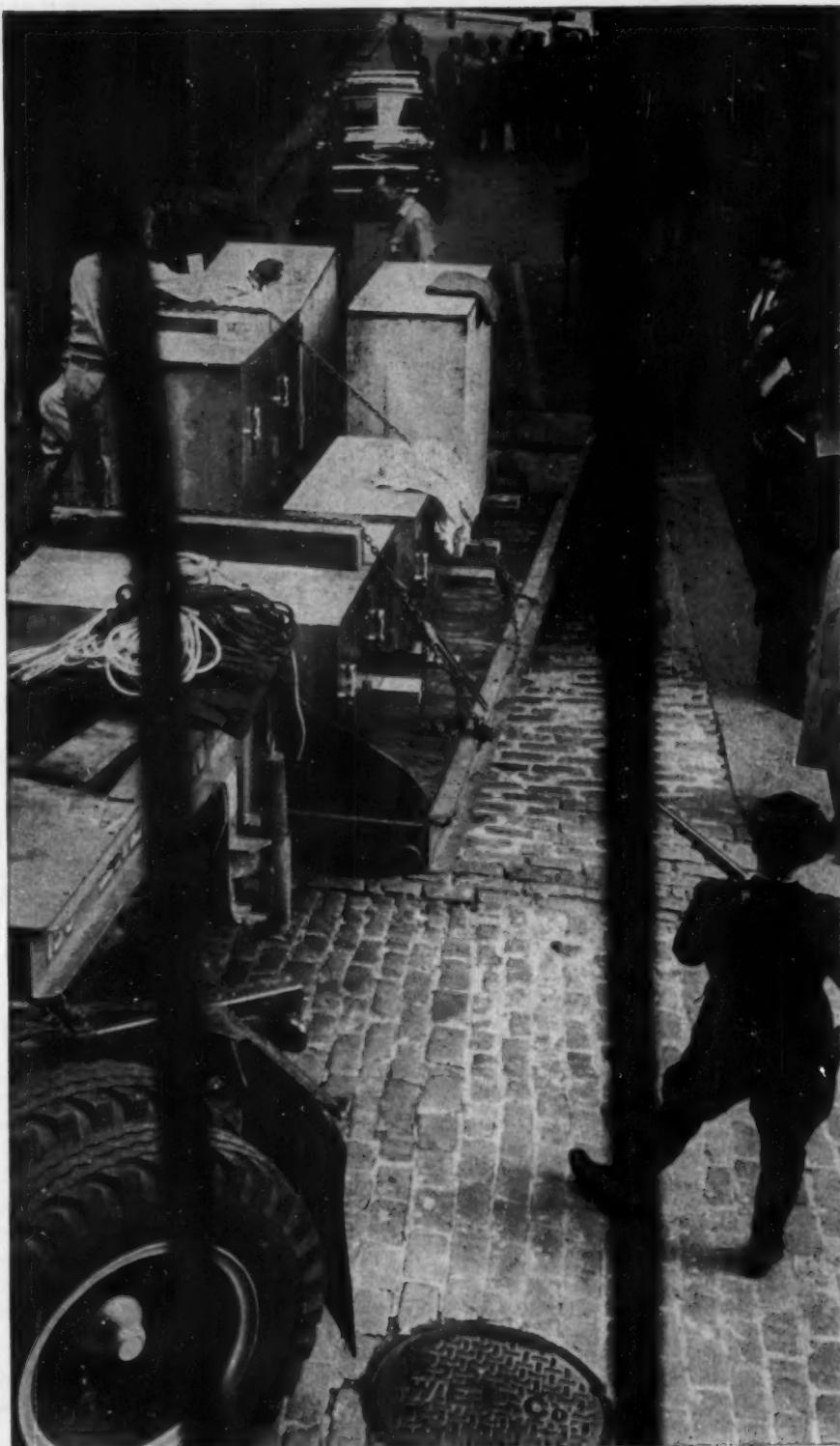
- **Happy Ending**—Happily, no bonds had their gilt edges scorched, nor did any other dire mishap occur. Everything is now safely locked up in the new vault. In getting it there, though, State Mutual had to do a lot of things you wouldn't ordinarily associate with moving day, or with insurance companies, for that matter.

- **At the Ready**—The call to the fire department wasn't because anyone thought the securities were so "hot" that spontaneous combustion was likely. A fire department emergency vehicle went along on each of the nine trips just in case somebody came careening around a corner, knocking over the money truck. Firemen had their hoses constantly at the ready to flush away any spilled gasoline.

But even the firemen were preceded in each procession by a State Mutual "security vehicle," with company financial officers crowded on the front seat, their eyes glued to the money truck just ahead. They had to certify each time that the same number of strongboxes that left the old office arrived at the new one still intact.

It would have been a bit difficult for anyone to slip one of the steel boxes—weighing from 1,800 lb. to 2½ tons—under his coat, especially since they were chained and padlocked to the truck. One set of ultra-blue-chip securities, it's true, was transported in a cardboard container only slightly bigger than a shoe box—but the container was securely embedded inside a safe before the truck left the old office.

Obviously, police protection came



STRONGBOXES of stocks and bonds, weighing up to 2½ tons each, are readied for two-mile trek from downtown Worcester to new offices. Moving took 12 hours, nine trips.

first on State Mutual's precaution list. That meant—in addition to motorcycle escorts—not guns. But Worcester is a normally peaceful city, and its policemen were a bit rusty on their riot gun technique. So officers assigned to riot gun duty spent the previous week blasting away at paper targets on the department range.

• **Sweat and Tears**—It took four trucks to complete the move—two “lowboys,” huge, flat-bed semitrailers, plus a panel truck, and a pickup. State Mutual chose these instead of armored cars because it had no desire to remove the securities from the giant steel boxes in which they are normally stored. Doing that would have meant a colossal audit after the move.

So State Mutual called in an outfit that specializes in hauling heavy equipment. And any cloak-and-dagger atmosphere that might have enveloped the proceedings gave way to heaving, sweating, and swearing.

The nine trips needed for the move were not so much a matter of bulk as of finance. State Mutual's insurance limited operations to \$30-million in transit at one time. The premium, incidentally, came to slightly more than 1¢ per \$1,000 of valuation—a total of \$2,800.

• **All in a Day's Move**—Though the precautions were many and long-prepared, State Mutual found that more can be involved in a quarter-billion move than can be foreseen even by a company whose business is providing against contingencies. The security vehicle full of eagle-eyed officials, for example, had a radio telephone for emergencies. But the company's financial officers, unused to such gadgetry, forgot to turn it off—and as a result, the car's battery died after one trip.

The public relations man, seeing a good opportunity to get the company mentioned in the papers, had invited platoons of reporters and photographers. This, in turn, meant large supplies of food, since the transfer started at 6 a.m. Sunday morning and lasted until 5:30 that evening. But while members of the press had been cleared and handed badges allowing them to enter the alley where securities were being loaded, no one thought to clear the milk wagon driver. He had his work cut out for him explaining his way past the riot guns.

• **And in a Name**—The move to a new office building with acres to grow in follows a change in name that also takes in more territory. The company is now the nation's 24th largest life insurance company in sales, with over \$2-billion life insurance in force and about \$670-million assets. Formerly State Mutual Life Assurance Co. of Worcester, it became a few weeks ago State Mutual of America.

Sniping at Bessie Salaries

Hearing on administered prices turns into a duel between the Senator and Bethlehem Steel's Pres. Homer over salaries and bonuses paid to Bethlehem's top echelon.

When the Senate Antitrust & Monopoly Subcommittee hearings on administered prices reopened in Washington this week, officials of Bethlehem Steel Corp.—the nation's second biggest steel producer—were on hand to explain the steel price increase of last summer and to discuss what they know of pricing policies in the steel industry.

• **Shift in Emphasis**—But steel prices took a backseat. Instead Bethlehem Pres. Arthur B. Homer found himself defending the salaries and bonus payments received by his company's top echelon executives.

Kefauver himself got the Bethlehem hearing off on executive pay. In his opening statement, he referred to Bethlehem as a company managed by an “inside” board of directors and said the committee wanted to inquire into the “salaries and bonuses that Bethlehem's inside board paid themselves.”

Homer insisted the committee take up the subject of bonuses immediately. Though Kefauver wanted to handle prices first, he finally submitted.

• **Kefauver's Case**—Kefauver's starting point: All of Bethlehem's 14 or 15 directors—up to 1957—were key officers or executives in the company.

Kefauver in effect charged that Bethlehem's board of directors not only votes its own pay as company executives, but does so on an extravagant basis. He used an analysis showing that between 1947 and 1956, the “inside” board paid themselves salaries totaling over \$10-million and bonuses of over \$28-million.

Another analysis used to back up this charge shows that of the 18 highest paid executives in American industry last year, 11 were Bethlehem officials. Including salary and bonus, these ranged from Bethlehem Board Chmn. Eugene Grace's \$809,011 (highest on the list) to Homer's \$699,176 (third ranking) on down to Bethlehem Vice-Pres. Jesse V. Honeycutt's \$364,589 (18th on the list).

• **The Defense**—Homer defended the “inside” board concept, as well as the executive incentive compensation plan, of his company. An “inside” board, he said, has no more powers than an “outside” board.

As for the incentive compensation plan, Homer said it was proposed in 1936 and adopted by the stockholders. Therefore, the fact that Bethlehem has an “inside” board does not mean the

directors vote their own compensation. The plan received overwhelming stockholder approval again this year, Homer noted, when two changes were adopted.

• **The Theory**—The theory of the plan, Homer said, has always been to “tie the interests of the directors to the company's benefit.” When the plan was adopted in 1936, it provided that 5% of net income should be paid into the incentive compensation fund. Out of this fund, an amount equal to 6½% of all cash dividends declared on common stocks each year by the directors was to be paid to the executives of the company.

From 1932, when a similar incentive compensation plan was in effect, to 1957, Homer disclosed the average amount of incentive compensation paid out to Bethlehem's 14 or 15 officer-directors was \$98,000 a year.

In answer to implications raised by Kefauver, Homer said “if Bethlehem's directors had been primarily interested in getting high incentive payments, they would have paid out a high percent of earnings.” However, Homer pointed out that while 63% of earnings is the average dividend payout for all companies, Bethlehem's payout—from 1951 through 1956—was only 38%.

• **Lowering the Scale**—Homer also informed the committee that the plan was changed substantially twice this year—once in January and again just last month. In January, the stockholders approved a management proposal to reduce the percent of dividends paid to executives in incentive compensation to 6% in 1957, then to 5½% in 1958, and to 5% after that. Homer also noted that 21 directors—since April, 1957—now share in this compensation plan, instead of the 14 or 15 as previously.

At a special stockholders' meeting last month, another management-proposed reduction was approved. Effective immediately, Bethlehem will pay executives 4½% of declared dividends. Homer said this reduction was made “primarily because the number of outstanding common shares was increasing, so that the aggregate of common stock dividends was increasing somewhat more rapidly than the dividends per share.”

• **A Real Reduction**—Last month the stockholders approved a new stock option plan. Kefauver wanted to know if what Bethlehem had really done was to reduce executives' bonuses,

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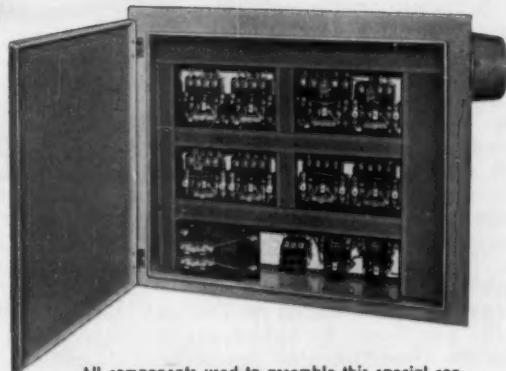
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while adding a stock option plan to increase compensation.

Homer's reply was a "yes" and "no."

No stock has been bought under the new options, Homer said. The option price to Bethlehem executives is \$43 a share. Since the present market price is around \$39 or \$40, exercise of the option today would involve a loss.

Homer also revealed that under the new option plan, Bethlehem executives can buy up to 10,000 shares a year. At present, the company's directors own only about 80,000 shares of Bethlehem's roughly 45-million outstanding shares.

• **Effect on Labor**—At this point, Kefauver asked Homer how he expects labor unions to "hold the line" in their wage demands when they see such substantial payments going to steel company executives.

Homer replied that executive pay represents only three quarters of 1% of Bethlehem's total employment costs.

Also he maintained the executive compensation system is payment not for any one year, but for long periods of, say, 25 years. "Over a long period of time, it isn't out of line at all."

Kefauver then asked whether Homer thought it an "unusual phenomenon" for Bethlehem—which ranks 11th in terms of sales, assets, and net profits in the nation's biggest companies—to place 11 of its executives among the 18 highest paid men in industry. The only possible criticism, Homer answered, is "that in one or two years of high dividends, it might look as if there was a little too much [incentive compensation] in that one particular year." But if it is averaged out as the plan intended, Homer concluded, "it is not out of line."

• **Tax Angle**—Sen. Everett M. Dirksen (R-Ill.) gave Homer the opportunity to show the committee what part of his salary and bonus is paid in federal income taxes. Matter of fact, Homer ticked off figures showing that though his gross before taxes has almost doubled since 1950, his take-home pay is almost the same today as it was in 1950. His salary and bonus in 1950, he said, was \$382,000; after federal taxes, he had \$112,000. Last year, his \$669,000 gross dwindled to \$113,000 after taxes.

• **Figuring Prices**—When the subcommittee finally got around to asking about steel prices, Homer told Kefauver that before the price increase of last July, Bethlehem was faced with an increase in direct employment costs—including union and non-union—of about 21.8¢ an hour. Multiplying that figure by manhours worked per net ton of finished steel products shipped gave Bethlehem an estimated employment cost increase of over \$4 a ton.

Bethlehem figures that for every

dollar of increase in employment costs, it will have at least another dollar of increase in other costs for materials, supplies, and freight. That means another \$4 increase in costs. So, Bethlehem faced a total cost increase of "something over \$8 a ton," Homer said.

Bethlehem raised its price \$5.20 a ton—not \$8—because, said Homer, "we were faced with the competition of the rest of the industry."

• **Line of Attack**—Kefauver's main attack: Why Bethlehem had to raise its prices by the exact amount and to the same levels as those of U.S. Steel—even though its costs are different.

Over and over again, Kefauver asked how Bethlehem could know that it

would not gain more business if it had reduced its price or made a price increase below U.S. Steel's increase.

• **Explanation**—Said Homer: "We didn't need new business." Lowering prices would not have increased sales because Bethlehem already was at or near 100% of capacity.

"We did not feel a reduction," Homer added, "or a non-increase in price, would increase our volume. That's my explanation."

The Bethlehem hearings are the next-to-last phase of the steel industry hearings on administered prices. Next witness is National Steel Corp's George M. Humphrey, former Secretary of the Treasury.

Atomic Accident Stirs Up the British

This month's disaster at Windscale plant was worse than people were told, and they're getting madder about it.

Every new detail about Britain's Oct. 10 runaway of an atomic reactor (BW—Oct. 19 '57, p50) seems to emphasize that the nation escaped a major catastrophe more by good luck than good management. And the British public is getting increasingly indignant about it.

As it was, the disaster was clearly more serious than the Atomic Energy Authority first admitted. And the AEA is being denounced by scientists, politicians, and the general public for playing down this seriousness.

• **Near Evacuation**—For example, many days after the accident it became known that AEA at one time planned to evacuate the whole of South Cumberland, the area near the Scottish border that surrounds Windscale. Police were even alerted, but the plan was not carried out. Some scientists and medical men say that the evacuation should have been carried out.

Only this week came confirmation that gray smoke had billowed from the chimney during the reactor flareup. This casts suspicion on the effectiveness of the filters in the flues—and on AEA's statement that only shortlived iodine radioactivity escaped into the air.

In emergency meeting, the Medical Research Council decided strontium 90 had escaped but "there was no reason to evacuate expectant mothers and young children from the area." The deadly strontium radioactivity did not exceed "an acceptable level," an official statement said.

• **Property Toll**—Farmers have been hit hard by the condemning of all milk from 700 farms in an area of 200 sq. mi.

Miners in the vicinity of Windscale hesitated to return to work until AEA assured them that the shafts were not contaminated. Workers at Calder Hall,

Windscale's neighboring atomic plant (BW—Oct. 27 '56, p126), held meetings to decide whether or not to accept AEA's assurances and go on working.

Scientists outside AEA are saying now that this wasn't the first radioactive fallout from Windscale—merely the worst. The chimney filters are ample to deal with failure of one or two fuel elements at a time, they say, but not 12 or possibly more, as in the latest trouble.

• **Lasting Effect**—It's likely that Windscale No. 1, the stricken reactor, will never work again, so severe is the irradiation. And the No. 2 pile nearby may also be shut down permanently.

Both had been expected to last another three or four years before being written off.

More broadly, the accident shakes confidence in the open-cycle type of atomic pile (in which the coolant gas goes out of the chimney after being filtered). The two Windscale piles have been producing most of Britain's plutonium.

• **How It Happened**—According to one newspaper report, the accident happened when a canister of H-bomb material was being heated. Other sources merely indicate that "military" experiments were being conducted in connection with the findings of the latest A-bomb explosion in Australia. It has been suggested that these experiments, for some unknown reason, were not compatible with the particular maintenance operation that was at the same time being carried on at the plant.

This maintenance operation, called the Wigner energy release, involves heating the graphite moderators to 180°F above normal working temperature, so as to relieve internal stresses caused by radiation.



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In Business

Martindell Loses on Appeal

In Fight to Control Who's Who

Jackson Martindell, head of the American Institute of Management, has lost another battle in his war for control of Marquis—Who's Who, Inc. (BW—Apr. 20 '57, p111). An Illinois appellate court this week declared that the option by which Martindell seeks to buy control of Who's Who no longer exists.

Martindell had lent \$125,000 to the late publisher of Who's Who, Wheeler Sammons, Sr., in exchange for debentures and pledges. If the debentures were not redeemed, Martindell had the right to exercise an option on 67% of Who's Who stock. In court actions, Martindell has claimed he tried to exercise the option prior to redemption of the debentures. The Sammons family claims that Martindell had refused their offer to redeem the debentures, backed by a deposit in a Chicago bank.

Now Martindell says he will try to get a higher court to reverse the appellate ruling that he must return to Who's Who all the documents pledged against the original note.

IRS Cocks An Anguished Eye

At Tax Dodge for Pittsburgh Cops

The way things are going in Pittsburgh, it looks as though the Internal Revenue Service might have to arrest the 1,700-man police force for tax evasion.

Not that the cops have taken to sin en masse; it's just that the City Council has dreamed up a way to give them a pay raise, at no cost to the city's till. The idea is to cut \$1,300 a year from the average pay of the policemen, and then give the money back in the form of an expense allowance—which is tax-free, at least in the opinion of a federal district court in South Carolina, which O.K.'d a similar plan. If it works, the average cop will get upwards of \$300 per year more in after-withholding pay.

IRS is howling with rage, claiming that the "allowance" is strictly compensation for services rendered. But the council is likely to pass the measure anyway, since it figures to make both taxpayers and cops happy. And the IRS can't vote.

SEC Bars Lawyer From Practice

In Aftermath of Hodge Scandal

The great Hodge scandal in Illinois echoed in Washington this week when a corporation lawyer was barred from practicing before the Securities & Exchange Commission for an indefinite period.

SEC says the lawyer, William A. Dougherty of New

York, an official of the Mississippi River Fuel Co., made "false statements" about a \$5,000 payment in 1955 to Orville E. Hodge, the former Illinois State Auditor who is serving 12-15 years in prison for embezzling some \$2.5-million in state funds.

According to SEC, Dougherty first said the \$5,000 was a loan to a friend, and denied he knew it had reached Hodge. Later, the agency adds, Dougherty said the payment was to enlist Hodge's aid in fighting a pipeline bill in the legislature that Mississippi Fuel opposed.

Los Angeles Japesters Can Their Smog,

Peddle It With Impurity Guaranteed

Los Angeles is playing a sort of joke on its smog—perhaps in the hope that it will go away when its feelings are hurt.

Anyway, the Los Angeles Smog Corp. is offering "genuine smog" for sale at 59¢ a can. Each can assures purchasers that the contents was "made in Los Angeles by angels," and guarantees that no pollutants or irritants have been removed. Cans are dated to show that they contain smog from vintage days.

The whole effect is said to be hilarious.

Business Briefs

Despite some pleas for further cuts, the November oil allowable has been raised by the Texas Railroad's Commission. The state's wells are allowed a daily production of 2,998,927 bbl., a rise of 58,788 bbl. per day over the Oct. 12 limit. There will be 12 production days.

Economic indicators: The Commerce Dept. says national income in the third quarter should continue the climb that began in the fall of 1954. In the first half, national income hit an annual rate of \$357-billion, a gain of 5½% over the year-before period. . . . Third-quarter business output held steady in real value, says the department, though rising prices gave an illusion of gain. . . . Dun & Bradstreet says business failures in first-half 1957 hit a rate of 54 per 10,000 companies, compared with 48 per 10,000 in the whole of 1956. . . . Short interest in Big Board stocks rose 124,783 shares, to a total of 2,608,195, between Sept. 13 and Oct. 15, says the New York Stock Exchange.

Two-way radios are being tried out in Dallas by Hertz Rent a Car. The idea is that businessmen—80% of Hertz rentals—would be able to maintain contact with their offices, and thus leave no minute idle as they speed from A to B.

A no-defense plea has ended the trial of John R. Cooney, ex-president of Fireman's Insurance Co. and associated companies in the Loyalty Group, charged with taking \$262,206 in company money for personal use. Sentencing has been set for Nov. 6 in Superior Court, Newark, N. J.

INVENTORIES



Industry must maintain adequate inventories to achieve maximum sales and profits. An idea of the size of the financial problem inventories present can be gained from the fact that the total value of industry's goods held in inventory customarily equals about one-fifth of the annual Gross National Product.

A sizable part of industry's current \$91 billion inventory is financed by various types of credit supplied by leading commercial banks like The Bank of New York.

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Which leg is artificial?

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REHABILITATION OF BADLY INJURED WORKERS.
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LIBERTY'S "EXPENSE RATIO" on Workmen's Compensation is lowest of any general casualty company operating nationwide. Liberty has returned \$422,111,000 in dividends to policyholders. For 20 years — the nation's largest writer of Compensation.

WHICH LEG is the artificial one? You could watch Martin Nappi for hours as he tends his 125 lobster traps on the rolling ocean off Yarmouth, Maine, but you'd never guess. Martin hauls his traps and sets them with the agility of a squirrel. His sure-footedness speaks for the care and training he got at the Liberty Mutual Rehabilitation Center — and especially to the skill of the Liberty prosthetist who designed Martin's leg.

An accident crushed Martin's right foot while he worked in a warehouse. His leg was amputated below the knee. Complications made it necessary to create a very special artificial leg. The Liberty expert had the know-how. In Martin's own words: "I feel it's my own leg. I hate to take it off."

When an employer places his compensation insurance with Liberty Mutual, numerous skills are available to speed the recovery of injured workers. Liberty's 4-phase Medical and Health Program helps reduce the insurance costs. You'd better look into this.



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WASHINGTON OUTLOOK

WASHINGTON
BUREAU
OCT. 26, 1957



Much more than Russia's Sputnik is involved in Pres. Eisenhower's decision to go to the public.

Fact is that Eisenhower, elected to a second term by a landslide vote only a year ago, realizes there is an uneasiness in the land. The speaking tour will be designed to quiet this—to reassure the public on several fronts.

There's the foreign field—the worry on the part of our allies that we have let the Reds get ahead in the cold war between the East and West. That is what brought British Prime Minister Macmillan to Washington this week.

This ties in with the whole problem of U. S. defense spending. Charges by the Democrats that Eisenhower has put a balanced budget ahead of defense have stung the President. And Sputnik gives the critics their first big argument.

But it is the domestic business outlook that worries most. This may well turn into the big political issue next year. Any party in power worries less about what goes on abroad than it does about conditions here at home in an election year. Unemployment can cause the party in the White House much more trouble than anything abroad short of war.

—•—

Washington is now second-guessing itself on the business outlook.

There's no panic sentiment. Eisenhower's forecasters see the last two months of the year as very good, on balance. Christmas trade will make many totals for the year look good.

But there's real worry about the business mood and the future. Earlier estimates of 1958 are losing some of their optimism. Feeling now is that the combination of the stock market break (bigger than anticipated), Sputnik, and the tense Middle East situation is bound to react on future business plans. Example: The big spending by business on plant and equipment, rising until recently, has been expected to take a sidewise movement—hold level. Some analysts now think they see signs that the sidewise trend will be interrupted by a downturn. This would be a weakening influence in the economy.

Will Washington change its policies? On "hard money," on public works? The answer is that it will if developments between now and next January confirm fears that a recession is in the making. Reporters covering the town are well aware that some of the government's economists feel that credit has been held too tight too long. These dissenters obviously aren't making policy at this time. But it is significant that they are becoming more outspoken. And it won't be long until you get some firm policy clues.

Here's one that's worth noting now, bearing in mind that it will be months yet before it can produce any tangible results:

Some easing of the downhold on public works. When construction was going great guns, the Administration didn't push its program of getting new federal buildings under the lease-purchase program. This is the program that would put certain types of construction, such as post offices and federal buildings, on an installment basis. Private capital would build the buildings and sell them to the government on time. The result would

WASHINGTON OUTLOOK (Continued)

WASHINGTON
BUREAU
OCT. 26, 1957

be to cut down the annual budget charge by spreading the cost over a period of years. But nothing came of the program. Private capital was limited to an interest rate of 4%, which was too low to attract money.

Here's the change O.K.'d by the Budget Bureau:

Lease-purchase contracts will be negotiated by the General Services Administration on the best terms the agency can work out. That breaks the 4% interest line. But more important is the fact that this may stimulate construction, a departure from the policy adopted earlier this year. Some \$700-million is involved.

Eisenhower's programs to Congress in January will be even more revealing.

You will get the government's new spending plans for fiscal 1959, which starts next midyear. There's little, almost no, likelihood that they will be under this year's estimated \$72-billion. In fact, the budget may well show a small rise.

Defense is one reason. Democrats in Congress cut Eisenhower's program for this year. Politics here at home and abroad indicate some further rise will be desirable in the spending schedule, although it may be made at the expense of other government agencies.

Democrats take cheer out of the goings-on.

They feel the House and Senate are safe for them next year. And they may well be right. But this was the prospect before Sputnik and Eisenhower's decision to take the stump this fall.

The Democratic attack will step up. Eisenhower now can't run again, so the attack is being aimed directly at him. And it's many-pronged.

There's the scientific field. With no mention of the economy battle they made in the House and Senate last year, the Democrats hit Eisenhower with the charge that he hasn't spent enough on defense.

There's Little Rock. The party's Southern wing feels badly burned and will whoop it up about bayonets and rifle butts. But the Northern and Eastern wing, which controls Democratic policy, attacks on the grounds that Eisenhower has fumbled the ball.

Eisenhower's civil rights policy will be as tough under the new Attorney General, William P. Rogers, Jr. Rogers got his tutelage under Thomas E. Dewey. He sees his political future depending on the East, and the Far West. He is the closest political intimate of Vice-Pres. Nixon, who has a personal interest in civil rights as chairman of the Government Contract Compliance Committee.

— • —

Note Vice-Pres. Nixon's maneuvers. For the first time, he seems to be disassociating himself from the White House line. He doesn't scoff at Sputnik. He takes it seriously. Many of his backers have hoped that the Vice-President would be on his own feet by 1960—out of any "me too" role. This may be the start. And with the Democrats split on integration, Nixon will have a real chance in 1960—to give the GOP four more White House years.

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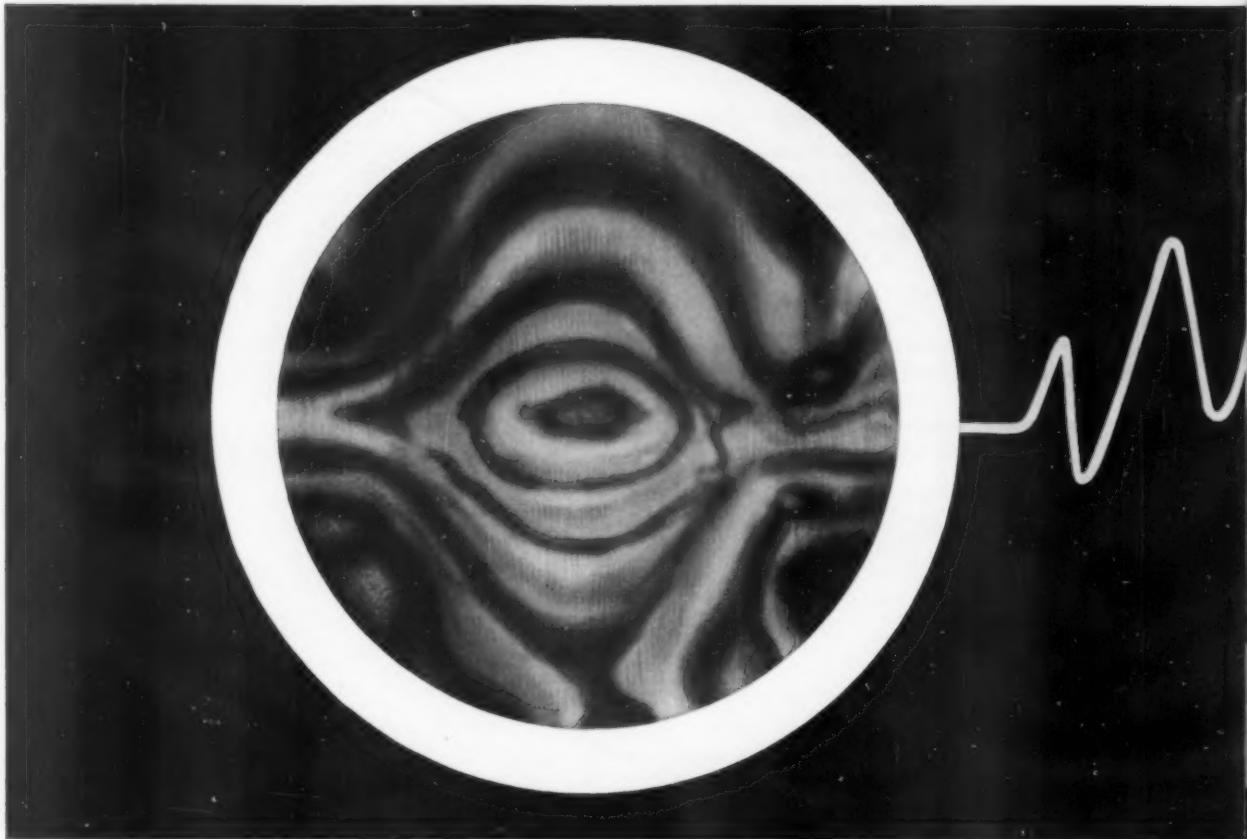
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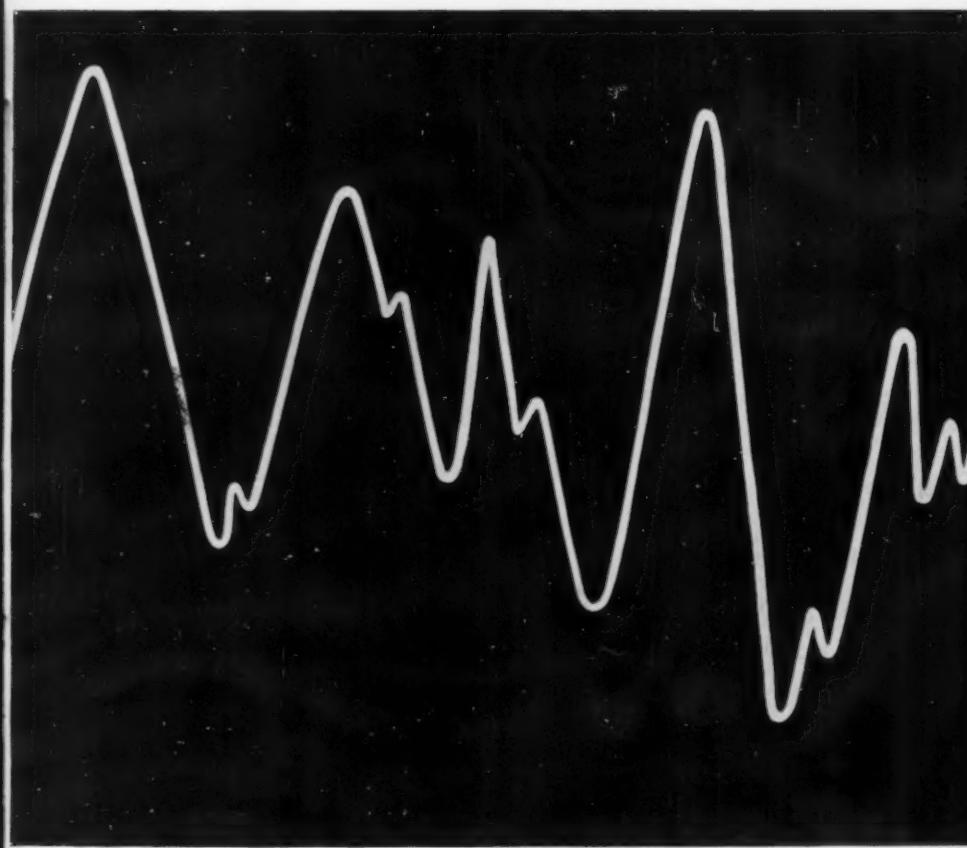


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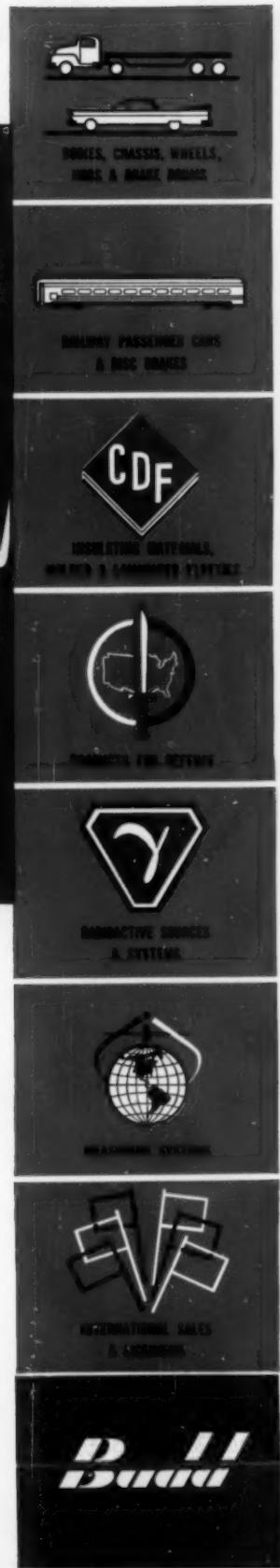


in scope and application by one thing only . . .
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In addition to PhotoStress, Tatnall develops, manufactures and sells measuring systems, spanning the field of sensing, recording and correcting, to a broad variety of industries.

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MONROE:

*Another city in Southeastern Michigan
has planned for industry*



Monroe is geared for both heavy and light industry. Its location, as Michigan's Lake Erie port, is an immediate advantage. And the port area contains one of the few large sites remaining in the country for heavy industry, such as steel, chemicals, cement. Besides direct access to the Great Lakes and the St. Lawrence Seaway, Monroe is on the new Detroit-Toledo Expressway, is served by major railroads.

The city with one industrial park is fortunate. Monroe has two, of which the port area is one. Under development and ready for occupancy is another, zoned expressly for light industry. Both have

the needed utilities; water and sewer facilities have plenty of reserve capacity. In addition, foresighted city planners are zoning to protect new industry from residential encroachment.

You'll also find that Monroe, planning for industry, has not overlooked pleasant living. Friendly, progressive people make it so.

Monroe is one of many cities in Southeastern Michigan ready for more industry. We will report on them objectively and in confidence. Just contact our Plant Location Service, Area Development Division, Detroit 26, Michigan.

*Monroe—a pleasant community,
plant sites, a port.*



watercolor by Louise Jansson Nobili

DETROIT EDISON

Serves Southeastern Michigan

In Finance

Treasury Sidesteps Debt Ceiling

By Marketing Fannie Mae Notes

The Treasury slipped out from under the \$275-billion national debt ceiling this week by marketing \$750-million of short-term notes for the Federal National Mortgage Assn. This borrowing is not included in the federal debt total. To sell the notes, however, Fannie Mae had to offer investors 4.857% interest, highest rate any comparable offering by the agency has carried.

The notes, dated Oct. 29 and maturing June 26, 1958, are not guaranteed by the Treasury. But the Treasury, which "requested" that Fannie Mae issue them, gave the agency assurance that it could borrow any money needed to pay them off when they come due. **Proceeds of the sale will ease the strain on the Treasury by reducing Fannie Mae's old debt to the Treasury of about \$1.7-billion.** That sum dates back to a time when the agency borrowed from the Treasury to buy mortgages. Today, it borrows publicly.

The last financing of the type done this week was in January, 1955, when a \$750-million, three-year, 2 1/2% offering was made. Some critics say the new offering will result in a lower income for Fannie Mae, since its portfolio consists mainly of 4% mortgages.

It's expected that similar refunding offerings made at the Treasury's request will hit the market before the end of this year. The debt managers figure they'll need up to \$2-billion more in cash by then. Federal agencies could borrow the money from the public and the debt would not be counted under the debt limit.

Squeezed By Soaring Auto Claims, Insurers Pull Out of High-Loss Area

In the face of mounting losses on auto liability policies (BW—Oct. 19 '57, p111) the nation's casualty insurers may be starting to take drastic action to counter the trend. Some companies that have been selling insurance through agents in Charleston County, S. C., are getting balky about writing auto liability policies in the area. They have begun to drop local agents from their lists, or to stop writing the policies for local car owners. One local agent, who no longer writes policies for two companies, says the reason behind the companies' action in the area is rising damage claims from accidents.

The average claim per policyholder in the city of Charleston has been running better than \$40. In Columbia, however, the average was less than \$28. Although rates for Charleston have gone up sharply, they've lagged far behind rising losses, making the county's loss ratio the highest in the state.

Rarely do casualty insurers pull out of a geographical area. Selectivity is usually on a policyholder basis. In other words, bad risks find it more difficult to buy insurance protection. Some experts interpret what's happen-

MORE NEWS ABOUT FINANCE ON:

- P. 64 Bear Markets Are Dominating Stock Exchanges the World Over.
- P. 70 How the Traditionally Defensive Department Store Stocks Are Faring.

ing in Charleston to mean insurance companies may take similar action in other areas where loss ratios are far out of line.

• • •

Alaska Pulp Mill Issue Brings

Japan Industry Bonds Back to U. S.

A small but significant bond issue came to market last week when Alaska Lumber & Pulp Co. placed \$12-million of first mortgage 6% bonds, due 1976, with U. S. insurance companies and pension funds.

The company is the operating arm of a Japanese corporation, Alaska Pulp Co., Ltd., of Tokyo. The private financing, negotiated by Dillon, Read & Co., was the first U. S. securities sale by a Japanese company in some 25 years. The bonds were backed by the parent company and indirectly by the Japanese Import-Export Bank.

Proceeds from the sale will help pay for a \$55-million Alaskan pulp mill. In addition, senior notes for \$7-million will be placed with U. S. suppliers for the project. The balance will come from the Japanese parent firm.

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Finance Briefs

Carlos Coll Benegas will never be convinced that the U. S. is in the midst of a tight money period.

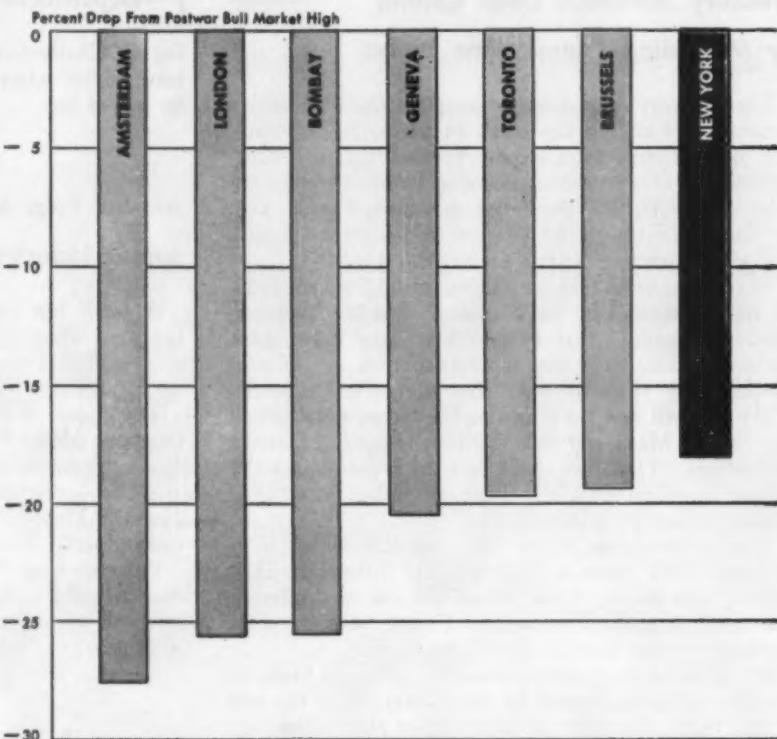
Benegas, president of the Central Bank of Argentina, came to New York for a bank loan to provide support for the slumping Argentine peso by creating more dollar exchange. Nine U. S. banks—seven of them in New York, one in San Francisco, and another in Boston—joined to grant the Argentine institution a \$27-million revolving credit. Benegas was surprised. Said he: "The amount is more than I asked for."

Hertz Rent A Car System, wholly owned subsidiary of Hertz Corp., will shell out \$60-million for 19,737 autos, largest single order in history. By next spring, the firm will have spent nearly \$100-million for some 30,000 new 1958-model cars. More than half the required cash will come from selling used 1957 autos, the rest from the company's revolving bank credit of \$65-million.

American Motors Corp.'s president, George Romney, is breathing easier this week. Just last month, Romney told employees, "We can't lose money in 1958 and stay in the auto business." Last year, the company lost \$19.7-million, and Romney indicated 1957 would be a loss year. But "substantial anticipated increases" in car sales and production for the current three-month period led Romney to predict the company will be out of the red for the quarter. The company's last profitable quarter was the period ended June 30, 1955.

Stock Market Worries:

IN THESE OVER-
SEAS MARKETS THE
BEARS HAVE
BEEN GROWLING
EVEN LOUDER
THAN IN
NEW YORK...



Data: Standard & Poor's Daily Industrial Stock Price Indexes And Representative Local Industrial Stock Indexes.

Traders All Over Free World Get

Price declines on exchanges in half a dozen nations have been steeper than on Wall Street, just as the earlier rises went higher. Disquiet over the U.S. economy and the international situation produce the greatest pressures.

Those aches and pains besetting Wall Street (page 163) are no mere local malaise. As the charts show, 10 other leading stock markets scattered around the world are hurting, too. Indeed, the disease is as farflung as the Asian flu.

What's more, the foreign exchanges are generally suffering more acutely than Wall Street. It's not the first time the foreign marts have been more extreme in their reactions. Nearly three years ago, in a happier context, **BUSINESS WEEK** was able to write that "Bull markets have never been an exclusively American phenomenon. Today the world's woods are full of them" (BW—Feb. 5 '55, p40). And it pointed out that the profits being harvested abroad were a lot juicier than those on the Big Board. Now, of course, the converse

is true; the old richer joys abroad have turned to much keener pangs.

• **Industrials**—The carnage in Wall Street has been brutal enough. Last week, Standard & Poor's daily index of industrial stock prices was down 18% from its record-smashing postwar high.

A broad, the industrials have been battered, too—harder than Wall Street in six of the 10 markets that have been scanned by **BUSINESS WEEK** reporters. Take Amsterdam, where the industrials listed on the Bourse were selling 27.6% below their bull market high. Or London and Bombay, both of which were off 25.5%, compared with the 18% of the Big Board industrials. Geneva, too, was harder hit, with a more than 20% fall; Toronto—Canada's No. 1 market,

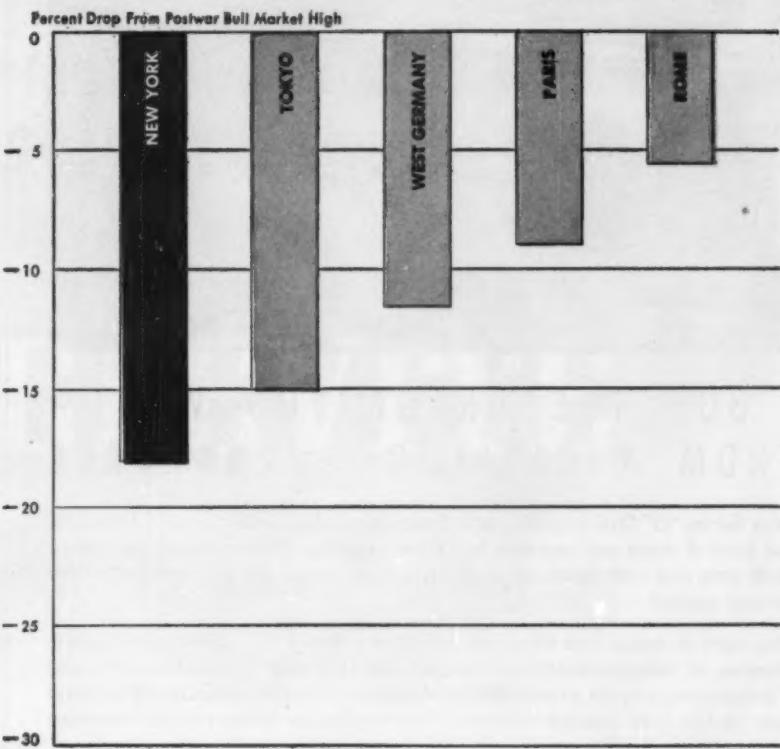
was off nearly 20%, and Brussels 19% plus.

• **Many Causes**—A variety of causes have brought on this widespread bearishness. Clearly, the foreign markets have been jostled by local fears, and by the break in Wall Street prices. Exacerbation of the world's assorted trouble spots, notably the Mideast, has inspired many a sell order. Just as big a cause—possibly the weightiest of them all—is the worldwide uneasiness brought on by increasing signs that the end may be near for the boom that has blessed most of the free peoples for so long (BW—Oct. 19 '57, p126).

Whether the boom is really ending is one of the mootest of points, with a hopeless split of opinion among international fiscal experts. The confusion is compounded by the fact that the post-World War II period has violated the tradition that big wars are always followed by depressions. Ever since V-J Day, instead of the time-honored post-war deflation, the world has seen persistent inflationary trends—trends so strong that much of the free world's

They're Worldwide Now

...AND ONLY IN
THESE FOREIGN
MARKETS HAVE
STOCK PRICES
HELD UP BETTER
THAN IN
WALL STREET



© BUSINESS WEEK

That Sinking Feeling

energy has been devoted to fighting them.

Indeed, this stress on fighting inflation is regarded as a great mistake by the experts who think the boom is now ending. Their idea is that deflationary policies have finally been pushed too far, particularly in the U.S., and that the world is riding for a fiscal fall unless the policies are reversed in a hurry.

• **Commodity Prices**—These experts are particularly distressed by the slide in commodity prices, with no relief in sight. Nations that are primarily producers of raw materials have been having payments troubles. Some, like Brazil, are just about busted; others have managed to protect themselves by exchange regulations on exports and imports.

The worriers have also noted some levelings off, and even drops, in key segments of the U.S. economy. These, with deflationary pressures elsewhere, are largely blamed for the drop in commodity prices. And woe betide the free world, these economists add, if these trends develop into a major slip-

page in the U.S. business activity.

Here's how the world's stock exchanges are reacting individually to these accumulating pressures:

London

Daily trading on the London exchange has been depressing and unsettling. What pauses there have been in the downward movement have been due more to the caution than the optimism of investors. Most counselors are urging a "wait and see" attitude. Even the congenital bulls have been damped down by the bad news, both at home and abroad, that has poured down on the City, London's Wall Street.

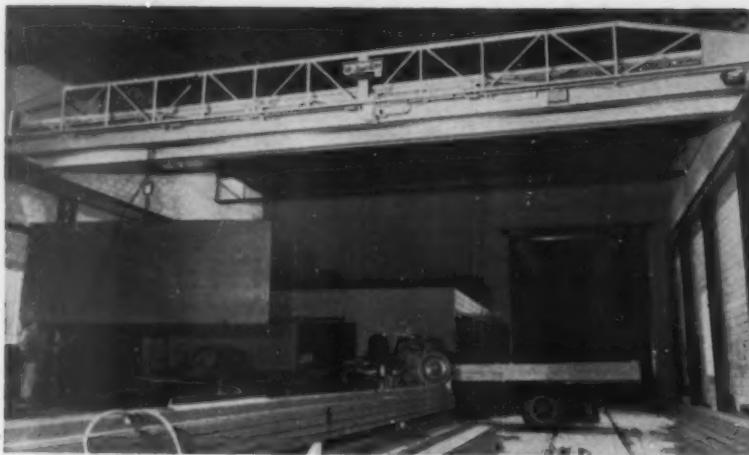
Last month, stock prices were especially disturbed by the behavior of sterling. Even when pressure on the pound eased, after the meeting of the International Monetary Fund, investors and traders remained dubious. They found alarming potentialities in the evident determination to defend the pound: Possible labor trouble this

winter, and woe for profit margins and dividends inherent in the credit squeeze heralded last month when the bank rate (rediscount) was raised to 7% from 5%.

• **Reaction**—British brokers also stress the influence of Wall Street on the City, especially on the down side. This tag-along effect was very evident when the Big Board's scared reaction to Sputnik and Russian aggressiveness in the Mideast was followed by a sudden end to the quiet London period that had followed a moment of cheerfulness earlier this month. Thus Londoners blame the nervousness over prospects well into 1958 on the Wall Street doings, plus the refusal of the Federal Reserve Board to let money become easier even after business failed to develop an autumn upturn.

Of course, Wall Street doesn't get the whole blame. General deterioration of the worldwide financial position, and the Mideast news have had their effect.

Despite all this, some over-all signs for hope are detected. It's felt that much of the world's actual and potential trouble would evaporate if U.S. business activity picked up speed. And Londoners are confident this speed-up



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will come, since they feel that all the U.S. is facing now is a "shallow decline in business activity" that could easily be offset if Washington boosted defense spending or eased money.

Amsterdam

Holland's big stock market blames price weakness on factors such as these:

- Higher local interest rates, rising from anti-inflation steps.
- Cuts in government spending.
- Wall Street's price break.
- International political tensions.
- The approach of a huge capital stock offering by Royal Dutch Shell, with Holland's share estimated at 300-million guilders.
- Less favorable reports by some major Dutch industries.

Just the same, most analysts believe that the Amsterdam prices will stay about where they are, unless world tensions increase.

Brussels

Belgian brokers say that prices first became edgy in mid-1956. Fear of an international recession gave the first push, followed by a slump in prices of copper and other materials from the Congo, and then last summer by awareness that deliveries of industry had crept ahead of new orders.

Finally, the biggest blow of all was the news that the government's overdraft at the Belgian central bank had passed the 10-billion-franc statutory limit. This is expected to bring deflationary measures, including the cancellation of tax cuts. Investors and traders agree that this must bring an end to last year's wage truce, along with reduced corporate profits even though business activity is still high.

Geneva

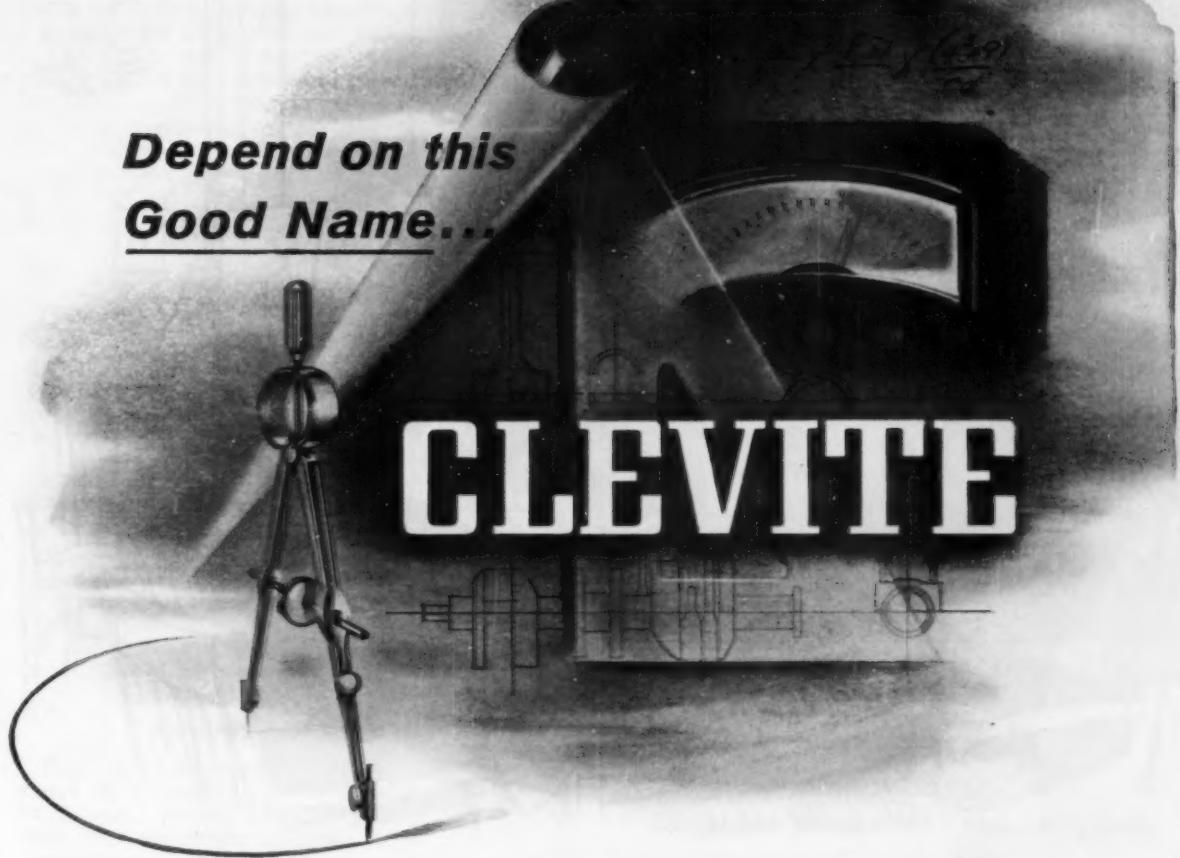
Swiss bankers blame the steep decline in Geneva market prices on many of the same factors that are accused elsewhere. They add that things wouldn't be so bad if traders and investors alike hadn't emulated their U.S. brethren in bidding up many stocks to fantastic levels.

There are few optimists today among Swiss students of the market. Apart from foreign worries, they say that many of their industries have expanded fast, without proper attention to potential sales. They also cite "overuse of credit," too much employment, over-inflation of wages.

Paris

Bull market highs on the Paris Bourse were achieved in mid-August, under pressure of long rampant infla-

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tion and new discoveries of oil in France. Since then, worrying has been concentrated on the government's economic troubles and its austerity program, doubts of the durability of business expansion, Wall Street's troubles, and the U. S. economic outlook.

All these worries haven't added up to serious alarm. Brokers are advising clients to sit tight, shunning any active sellout.

West Germany

German brokers are not alarmed by the modest price decline, which they attribute to selling by foreigners worried over Sputnik and the world picture. Germans, they say, generally are hanging on.

Last summer there was a strong boom in German stocks, due in large part to foreign buying that followed rumors of revaluation of the Deutsche-mark and the polls that predicted Chancellor Adenauer's election victory in September. This boom has since petered out due to the foreign selling but analysts think it will soon resume under pressure of domestic buying.

Bombay

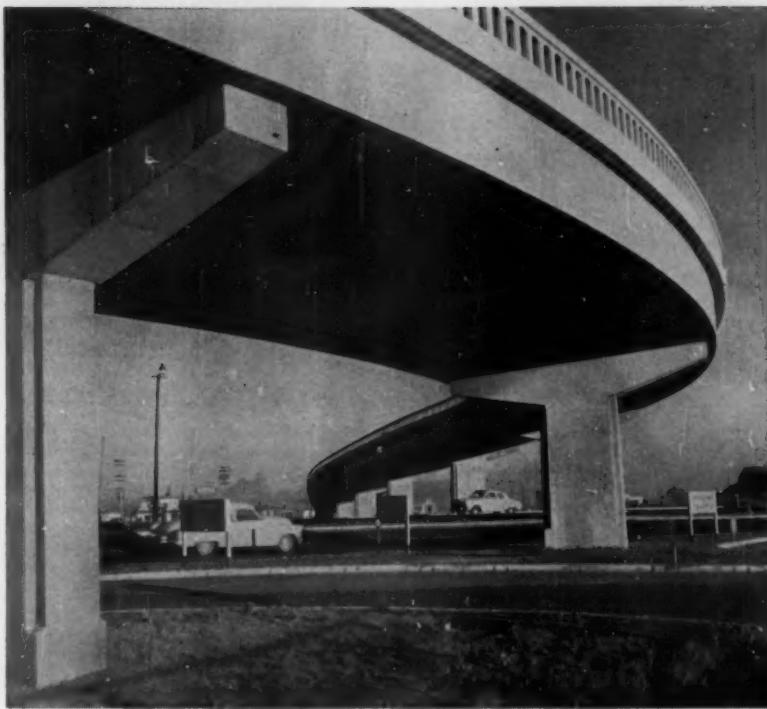
Heavy taxes announced last May started the steep decline in the Bombay market. Further pressure came when the government admitted it would have to prune the five-year economic plan because of a critical shortage of foreign exchange, and when inventories began to pile up in the key textile industry.

Analysts say prices would be even lower now had it not been for the news of U. S. loans to expand the steel and rayon industries, credits in yen and marks, and the belated settling of several Indo-U. S. deferred payment arrangements.

Tokyo

Stock prices began to fall on the Tokyo market last May, when the government raised the discount rate by 2% in an effort to slow the rate of imports. The drop has slowed down markedly since early summer, spotted with rallies that followed good crop news, a government-imposed cut in the rate on call money, and steady improvement in the position on international payments, which had been highly unfavorable in the first half of the year.

Traders and investors now think the government may ease the tight-money situation and cut the high corporate tax rate. And they're not too worried over stock prices, though they admit that last May's highs aren't likely to be duplicated for some time. **END**



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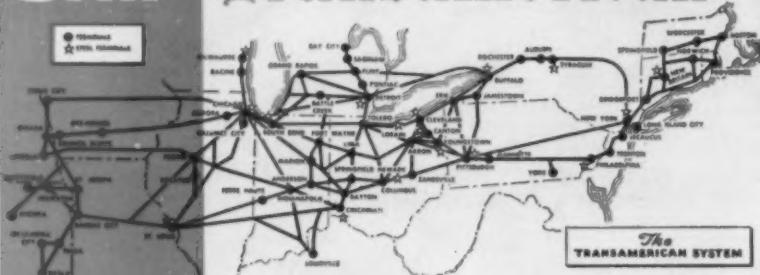
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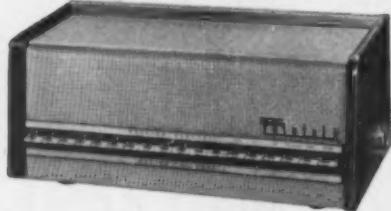
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Only 49 Days . . .

. . . to shop before Christmas. Will holiday buying salvage a disappointing year for U.S. department stores?

The brass in U.S. department stores is already counting the shopping days before Christmas. November-December sales usually account for 25% of a year's total volume, and if the cash registers jingle hard enough this season, it may mean salvation for a disappointing year.

The reasons for disappointment aren't at first evident, at least not from the recent behavior of department store stocks. In mid-October, Standard & Poor's 425-stock industrial average had fallen 18% from its 1957 high, while S&P's weekly group index for department store shares was off less than 5%.

But the department store stocks had dropped 19% from their bull market high in September, 1955. In other words, the department store issues started their slump two years ago. They have actually fallen just about as far as the rest of the market, but they have spread the agony over a longer period.

The shares in the big stores are defensive stocks, and such behavior is typical of the breed. If their department is at the moment better than most of the market's, it's mainly because they've already done a lot of the suffering other issues are now undergoing. But their trials are by no means over.

- **Promise Unfilled**—As 1957 opened, predictions were for a 3% to 5% gain in volume over 1956. At the end of the first quarter, earnings backed this forecast up. For example, for the 13 weeks ended Apr. 30, Federated Department Stores, Inc., earned 58¢ per share, compared with 51¢ in the same 1956 period.

But the second quarter turned weak. Even though sales volume was up, Federated brought home only 36¢ per share, against 54¢ a year before. Most other department stores turned in similar performances. Sales volume for the first half of the year ran only 2% ahead of the first six months of 1956. The blame went mostly to unseasonably cool weather; store executives said the late arrival of summer held down Easter sales.

- **Minus Signs**—Other factors continued to eat into department store sales and profits:

- The slowdown in residential construction dampened appetites for appliances, garden tools, and other household hardgoods.

- Competition from discount



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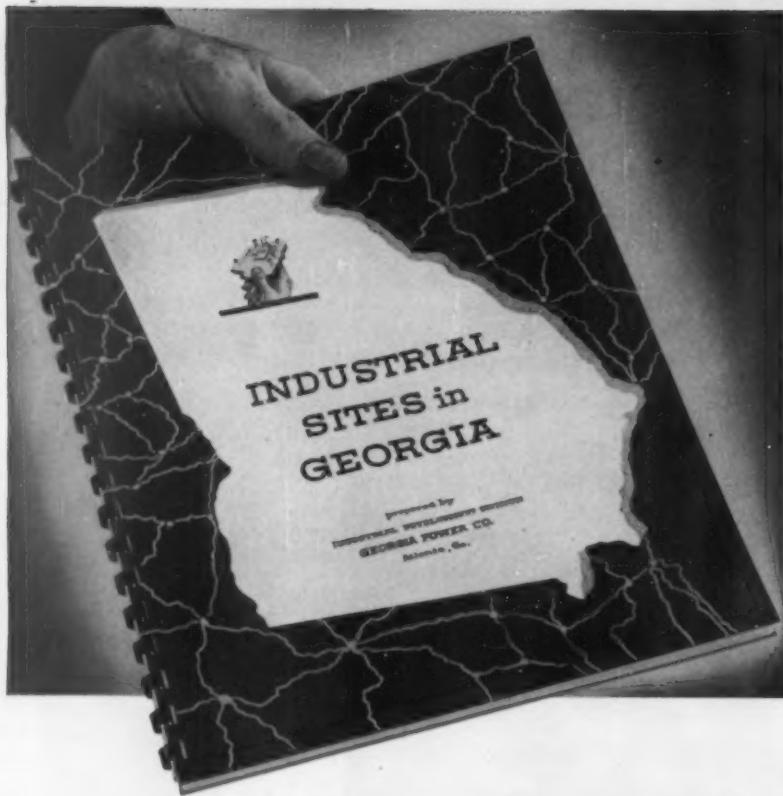
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houses and supermarkets carrying rival lines was virtually unabated.

• Rising costs nibbled at profits all across the board. One sign of the profit squeeze has been a cutback by some stores in the number of sales personnel—which, some critics say, only results in further losses in sales volume.

Even so, at midyear the prophets still weren't discouraged. Easter sales (March-April), which generally make up about 17% of the year's total, had been disappointing, but they could always look forward to Christmas. After all, business activity, employment, and disposable consumer income were continuing high, and retail sales closely follow the trends in consumer buying power and general economic activity.

• Hopes Dashed—Today, however, the optimists are losing their fire. Faced by a number of adverse signs, they are recanting on some of their forecasts for the second half of 1957. The National Retail Dry Goods Assn., for instance, in a survey of 209 stores, found that the number of transactions during the first six months of this year fell 2% below the same 1956 period.

Other warnings are evident. The Federal Reserve Board reports that nationwide department store sales for the year up to Oct. 12 were 2% ahead of last year. But for the four weeks ended Oct. 12, they were 1% behind.

In the meantime, retail inventories are rising. At the end of August, says the Commerce Dept., inventories stood at \$24.2-billion, compared with \$24.1-billion in July and \$23.7-billion a year before.

Perhaps an even darker omen is the decline in personal income last month—the first downturn in more than a year. In September, the Commerce Dept. said, personal income dropped to an annual rate of \$346.5-billion (seasonally adjusted), against \$346.8-billion the month before.

• Reluctant Consumers—Although consumers apparently still have plenty of money to spend on goods and services, so much merchandise is available that there's no urgency in buying. And the attitude of consumers is vital to the outlook for department stores sales. As one top store executive put it a few days ago: "You have to have both the ability and the willingness to purchase before I can make a sale." This week, it looks as though consumers may be pulling in their horns. The spate of depressing news about aircraft layoffs, defense cutbacks, and the sharp break in the stock market has eaten into consumer confidence, retail analysts fear.

Although many of these observers still think 1957 sales volume will top last year's, if only by a couple of percentage points, they admit that their hopes rest on the Christmas buying season. END



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In Business Abroad

Plans for Iraq-to-Turkey Pipeline

Get Nowhere After Five Months

After five months of discussions in London, the ambitious proposal for an \$840-million pipeline from Iraq to Turkey has not even reached first base.

The Suez crisis a year ago started the idea—and 17 oil companies, mostly American, picked it up. But the new Syrian crisis and disagreement among the interested companies have brought work on the project to a virtual standstill. The main troubles include:

- Dissension over which companies should foot most of the bill.
- The possibility of new, Sputnik-inspired outbreaks in the Middle East.
- The unexpectedly big surplus of tankers, which cost more to operate, but bring fewer risks—coupled with the prospect of atomic-powered tankers.

Says one official: "We want the pipeline because the Middle East chapter isn't closed yet—and we may need that pipeline. But meanwhile, it's a bad investment."

• • •

Sputnik Fails to Draw a Smile

From Sphinx; U. S. is Blamed

Sputnik, Russia's earth satellite, passed over Cairo this week. No one saw, heard, or photographed it.

Mohammed Fathy, secretary of Egypt's committee for the International Geophysical Year, searched for a way to explain this rhubarb. Yes, the U.S. was the culprit. Last summer, Fathy said, the U.S. had agreed to supply telescopes and cameras to 12 sighting stations round the world, including one at Aswan in Egypt. Then, after Suez, the U.S. reneged on Aswan equipment.

While Fathy was blaming the U.S., a Soviet geophysical mission was already using its own IGY station at Aswan—financed and equipped by Moscow.

• • •

West Germany's Film Industry

Trying Comeback in U. S. Market

West Germany's film industry—finally reviving from wartime destruction—is making a play for the U.S. market. This week New York's Museum of Modern Art will screen seven recent German releases to start off the museum's 13-week historical review of Germany's film industry. Then, in the next few months, two of the new pictures—Reaching for the Stars and Golden Plague—will make their debut in the "art theater" circuit.

Before the war, Germany boasted a first-class film industry. But the war knocked out nearly 7,000 movie houses and most film studios. Many countries banned showings of German movies. During 1949, when French,

MORE NEWS ABOUT BUSINESS ABROAD:

- P. 76 Broken Hill Proprietary, Australia's steel giant, ponders how fast can it expand.
- P. 81 American overseas investors are warming to government insurance program.

Italian, and British films were invading U.S. and foreign markets, the German film industry turned out only 60 movies—most of them hackneyed products.

But by last year, production had doubled. Four months ago Export-Union, the industry's export association, set up a promotion office in New York. With supposedly first-rate releases ready now, the industry thinks that in time it may catch up with other European competition in the U.S. market.

• • •

New U. S. Company Seeks Iron Ore

In Venezuela; 7-Million-Ton Target Set

The stake of U.S. industry in Venezuelan iron ore is getting bigger.

U.S. Steel and Bethlehem Steel are shipping out 15-million tons this year from their iron properties in Venezuela. Now a U.S.-Venezuelan newcomer—Trans Western de Venezuela, C. A.—says it is planning initial production of 3.5-million tons annually, with 7-million tons the ultimate goal.

Biggest shareholder in Trans Western is Western Oil Fields, Inc. of Denver. Another shareholder is Paul G. Van Sickle & Associates, an engineering firm also of Denver. And this week MIVENCA, Trans Western's operating subsidiary, named two Americans to its board—Wendell Anderson, former president of Crucible Steel, and Struve Hensel, former U.S. Under Secretary of Defense. By mid-1959, MIVENCA expects to begin deliveries to Barium Steel and Colorado Fuel & Iron—as well as to West Germany and Belgian customers.

• • •

Business Abroad Briefs

New Foreign Operations: AMP Inc., Harrisburg, Pa., will set up a wholly owned subsidiary in Tokyo to manufacture solderless electrical terminals and tools for its application. Sales will be made through a Japanese company . . . Wyatt Metal & Boiler Works, Inc., Houston and Dallas, has set up a plant to manufacture and finish heavy metal plate objects for petroleum, electrical, and chemical customers in Mexico. It will also manufacture boilers as Mexican licensees of Combustion Engineering . . . Rockwell Spring & Axle Co. has started a joint venture with Campanhia Brasileira de Material Ferroviario, Sao Paulo, putting the South American company into the auto business . . . Meanwhile, Sears has combined with another Brazilian outfit, Brasmotor, to set up an assembly line for RCA's Whirlpool product . . . Oliver Corp. has recently started the first Australian production of crawler type tractors in its Sydney plant . . . Kraft Foods Co.'s Australian subsidiary plans a \$2-million expansion.



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tain high output from cleaning to cleaning. And—because they don't depend on your ceiling as a reflecting surface—Sylvania internal-reflector fluorescents can help you stretch out painting schedules.

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Australia Expands Steel Output

● Its Broken Hill plants are already the continent's biggest industry, yet industrial needs are growing.

● Australia makes its steel at remarkably low cost. If it could get ahead of domestic needs, it could probably find a ready export market, businessmen say.

● But, as everywhere, there's a limit to how much growth can be financed out of earnings. And Broken Hill has political reasons for not looking abroad for capital.

This week, Australia's giant Broken Hill Proprietary, Ltd., the world's lowest-cost steel producer, is stretching its limbs—hinting vaguely that its current \$250-million, five-year expansion program isn't big enough. And it may well be that Australia's largest industrial enterprise isn't big enough to keep up with the country's industrialization pace.

Australia's industry looks to Broken Hill much as American companies would look at a primary producer if it combined all the capacities of U.S. Steel, du Pont, and General Motors. Broken Hill's two integrated steel works at Newcastle and Port Kembla—Australia's only ingot steel producers—have an installed capacity of nearly 3-million tons. That's comparable to Weirton Steel Co. in the U.S.

With only 10-million people in the dominion, Australia's per capita steel consumption is among the first seven countries in the world. Only the U.S., Britain, Sweden, Germany, France, and Canada consume more.

● **Growth Need**—But with Australia's booming industry depending on steel, the question is whether Broken Hill can keep up with demand. Especially, the question is critical if Australia is to continue as an exporter of steel. Last year the dominion exported a net \$65-million worth, despite imports of certain specialty steel products.

It's this boom that has set off a new round of rumors that foreigners are interested in investing in Australian steel production, setting up to move into a market over which Broken Hill now has a monopoly. A group of U.S. prospectors—reportedly including U.S. Steel—are looking for an ore body. Reportedly, they are attracted by Australian steel economics (chart) that make Broken Hill's product the cheapest in the world, despite its high profit margins.

Pittsburgh guesses, however, that competition for Broken Hill isn't likely to materialize any time soon. Biggest

obstacle is the fact that American steel manufacturers need all the investment capital they can muster to meet the demands of expanding U.S. production. The same seems true in Britain.

● **Politics**—This means that Broken Hill is likely to continue as a key to the Australian industry—and the target for left-wing criticism as a monopoly. It's one of the curious anomalies of life Down Under, however, that while BHP is a political target for Australian Socialists, it's also the Australian industry with the least labor trouble. Furthermore, its stock is very widely held. Even its bitterest Socialist critics are likely to take pride in the fact that it is the most conspicuous example of Australian industrial know-how and progressivism.

● **Start in Nonferrous**—Few steel companies in the world can claim as versatile a history as BHP. The Australian company started in 1885 as a producer of nonferrous metals. It was actually formed to mine and smelt some of the world's richest deposits of lead, zinc, and silver, discovered in the semi-desert lands of western New South Wales at a place called Broken Hill.

By the first decade of this century, Broken Hill's nonferrous deposits began to wane. Broken Hill's predominance in nonferrous metal production gave it the necessary capital and technology to move into steel—something British steelmakers had never encouraged other Australians to attempt.

In 1897, BHP acquired a huge iron ore deposit in South Australia. It had used iron ore from the deposit in operations of its lead smelting. In 1913, BHP started building a steelworks at Newcastle, New South Wales, and by early 1915 the first Australian pig iron and steel made its appearance on the market.

● **American Model**—From these earliest days, BHP had important ties to the U.S. BHP avoided turning to British technology to keep up to date, partly because several steel mills with British

ties had flopped. Instead it brought David Baker, an American consulting engineer, to Australia from Philadelphia, and it was he who largely guided the infant steel industry's construction and expansion.

Baker took the U.S. Steel Corp.'s Gary (Ind.) plant as his model. And in the Newcastle site he had almost a perfect steel layout—he had ore, coking coal, and water transportation to Australia's main market, Sydney.

Baker's initiative and World War I shortages did the rest. The company started an expansion program, one that has hardly slackened since. American influence has continued. American visitors to the Broken Hill's Port Kembla plant find it bears a close resemblance to Kaiser's Fontana works or U.S. Steel's Morristown plant. The most recent addition to Port Kembla is a hot strip mill built by United Engineering & Foundry Co. of Pittsburgh.

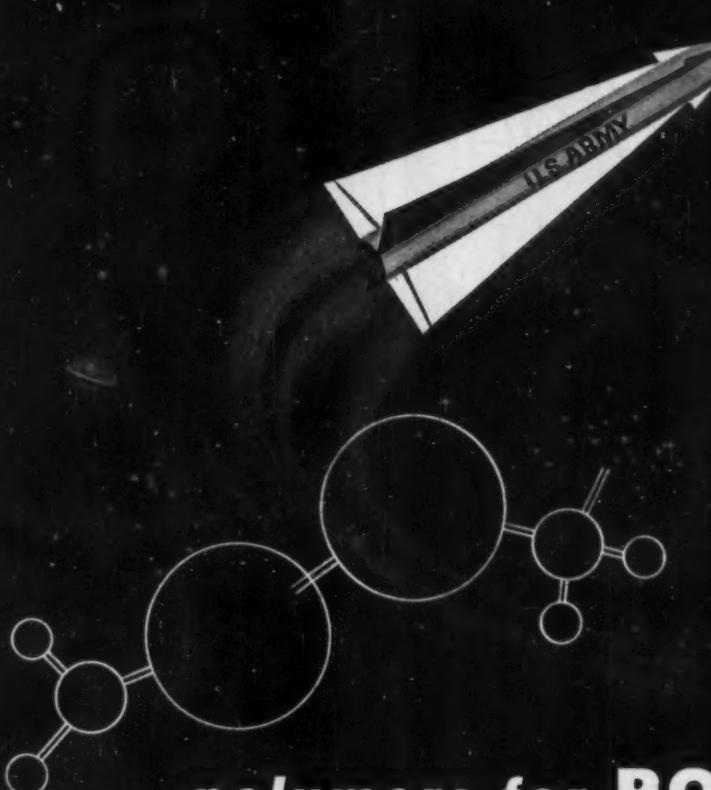
● **Low Cost**—BHP's cheap steel has played a tremendous role in Australia's post-World War II industrialization. Big domestic producers such as GM-Holden (BW—Feb. 23 '57, p. 34) see an export market to the rest of Asia for steel products. The low cost of the steel—based on a combination of abundant raw materials, cheap but productive labor, and modern plant—also makes BHP's life easy. When Australia's market lags, BHP can sell its cheap product abroad—sometimes even as far away as the U.S. West Coast.

But the possibility of export poses a political question for BHP: Should it produce only for the domestic market, or should it produce for foreign markets where the profits are higher? As a result of governmental pressures, the company sticks to the policy of supplying local requirements at lower prices rather than taking higher-priced foreign orders.

● **Needs Competition**—This dedication to Australian national interests hasn't saved BHP from attacks. Its very "bigness" is enough to win it the enmity of many Australians. Other Australians feel it should have expanded much more rapidly.

Both Australian right-wingers and Socialists would like to see it get some competition. The Socialists are particularly bitter, claiming that it influences every decision of Aussie Prime Minister Robert Menzies, whom they call, significantly, "Iron Bob."

● **Labor Harmony**—BHP is relatively free of industrial trouble, despite the attacks made on it by Australian Labor party stalwarts. Some U.S. observers attach special importance to this fact as one of the reasons for BHP's low



polymers for POWER

The versatility of THIOKOL liquid polymers and their ability to cure to a tough solid rubber at normal temperatures have long intrigued the chemical and rubber industries.

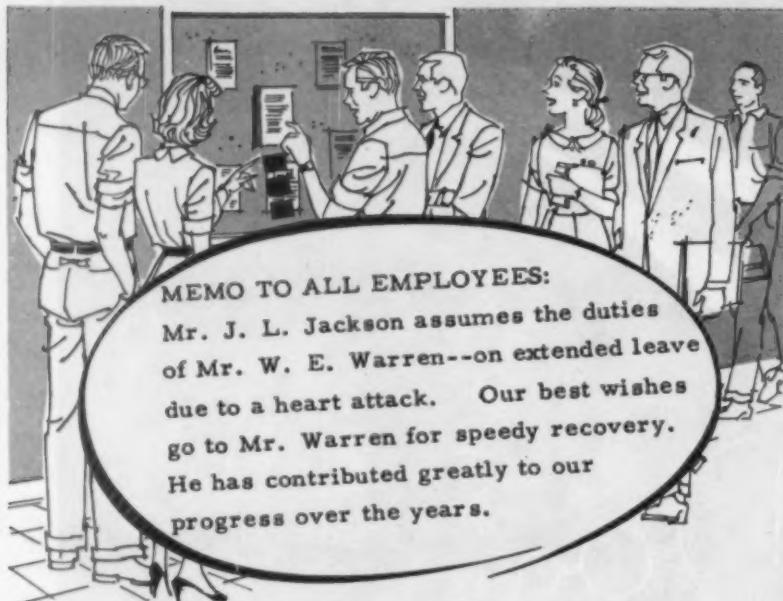
But only nine years ago "polymers for power" was a new and daring concept in the field of rocketry. Army Ordnance specialists were among the first to recognize and promote solid propellant rocket power based on Thiokol liquid polymers.

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MEMO TO ALL EMPLOYEES:

Mr. J. L. Jackson assumes the duties of Mr. W. E. Warren--on extended leave due to a heart attack. Our best wishes go to Mr. Warren for speedy recovery. He has contributed greatly to our progress over the years.

One problem solved, BUT...

There are other serious problems—money problems primarily—at the office and at home. Management faces the question: "How much income can we provide . . . and for how long?" Even the most liberal must eventually make compromises which both they and the disabled man regret.

At home, other grave questions: "How long will my savings last . . . based on my present standard of living, with the added burden of medical expense? Until I recover?"

These questions *must* be asked during disability—the greatest hazard most men face during working years. They *should* be asked *before* disability . . . and acceptable answers provided.

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Pig Iron (foundry)	\$ 59	\$ 65	\$47
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Merchant Bars	113	122	89
Plates	120	114	97
Heavy Rails	114	124	94

*United Kingdom Iron & Steel Board, Price Determination

**American Metal Market

***BHP Ltd.

costs. You don't have to look far for the reason for the lack of labor unrest: BHP pays higher wages than most other Australian industry, has a training program that attracts many young and new Australians.

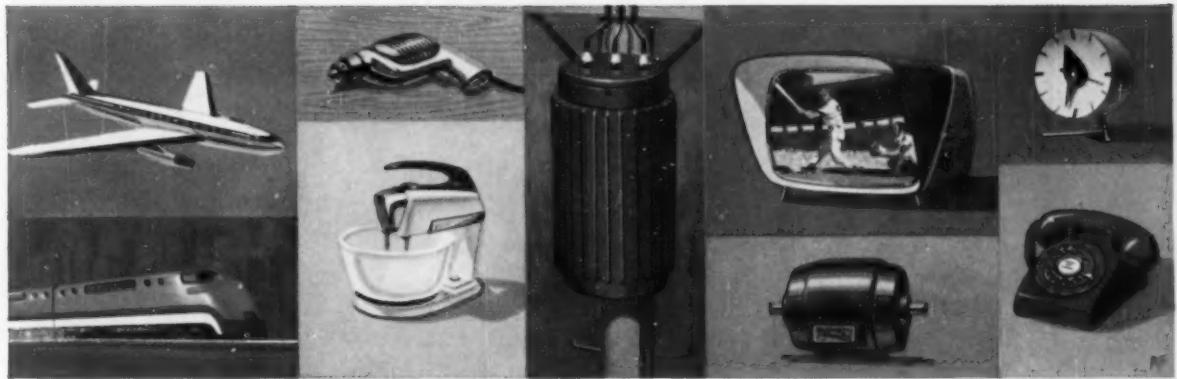
Many a bright young man who until very recent years found it difficult to get a university education has joined BHP. BHP training programs not only include regular technical education, but many employees are allowed time off, with pay, to take university training. BHP also has taken a big chunk of the postwar immigration; its 31,000 employees—43% more than in 1946—include large numbers of new Australians.

• **Expansion the Watchword**—BHP has now begun installation of additional open hearth furnaces that will increase production of steel ingots 16%. This will put its annual output rate up near 3-million tons. Expansion of the Dominion's population, the potential market in Japan and New Zealand, and the rapid industrialization of the country based on steel all indicate BHP's market has broad horizons.

• **Takes a Lot of Money**—Just how much faster BHP can push its expansion remains to be seen. So far, expansion has been financed out of retained earnings. BHP takes pride in the fact that 85% of its stock is held by Australians (and another big chunk by fellow Australasian New Zealanders), and there is no enthusiasm for moving abroad for new capital. There is some talk, however, of introducing depository receipts in the U.S.

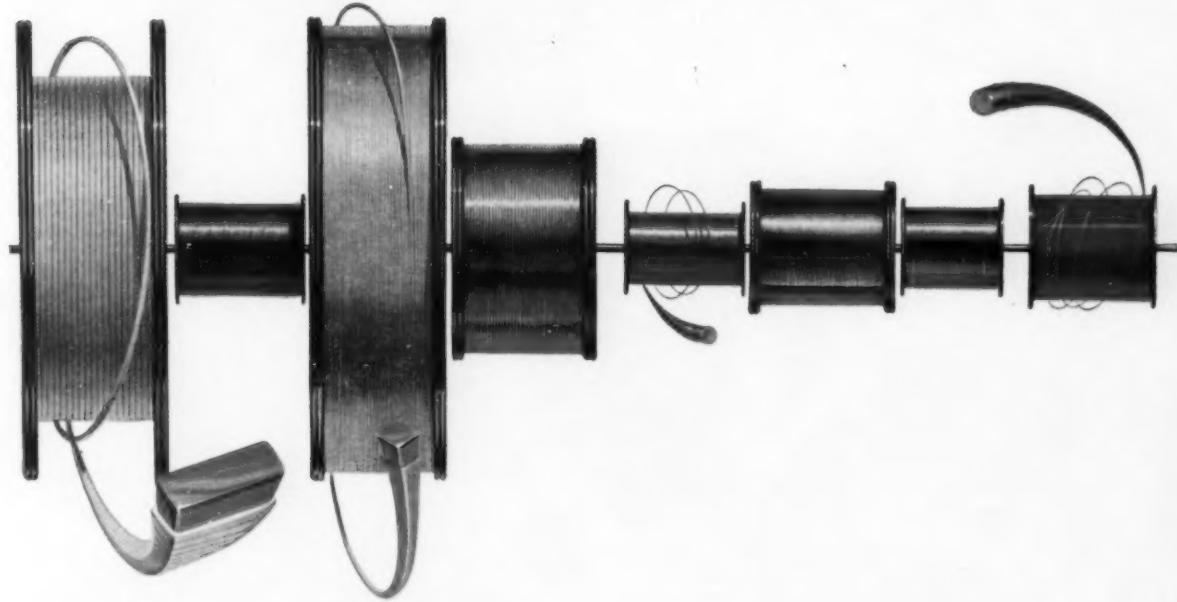
This year Australian financial writers speculated that the "normal" BHP dividend of 10% would take less than half this year's profits. (Estimated sales for BHP—the group including shipbuilding and aircraft assembly as well as steel—will probably top \$250-million this year.) In a classic "Down Under" understatement, one writer says, "This 10% dividend may seem low for a company such as BHP."

But he points out that the conservative dividend policy is a direct result of the company's demand for expansion capital—and clearly those demands may be even heavier. **END**



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For more information on this dramatic new lane-marking material, write 3M Dept. BF-107, St. Paul 6, Minnesota. We'll be glad to give you facts and figures showing how others are saving with "SCOTCH" Brand Plastic Tape, and how it can save for you.



Insuring Bets Abroad

Foreign investment guarantee program gets boost from dollar shortage, squeeze in underdeveloped lands, U.S. hunt for markets—but there are still some hurdles.

The government's foreign investment guarantee program—one of the oldest yet least publicized operations under foreign aid—seems headed for a real boom after 10 years in the wilderness.

Under the program, new private American investments abroad are insured against certain losses—for a charge of 1% of their value. The losses could arise from inconvertibility of profits or capital, expropriation, or war damage.

• **New Demand**—When the program was launched with the Marshall Plan in 1948, many businessmen viewed it with suspicion as government invasion of yet another sanctuary of private business.

Now, however, the program may become a major tool of U.S. foreign policy. Four new factors are boosting the demand for government guarantees of foreign investments:

• The acute new dollar shortage in many parts of the world makes insurance against convertibility problems more attractive.

• Many underdeveloped countries are caught in a squeeze between mounting demands for rapid economic development on one side, and inadequate local resources and dwindling U.S. government aid on the other. This is forcing them in many cases to swallow their inherited fears of domination by private foreign entrepreneurs, to re-examine possibilities of attracting foreign investors.

• There's an increased emphasis within the Administration on the role of private investment in economic development abroad. This has led to a beefing up of the International Cooperation Administration's staff for handling the guarantee program, and to a reduction in processing time for applications.

• A growing number of U.S. companies are looking to world markets for marginal profits. One way of getting a solid hold in a foreign market—particularly in a period of dollar shortage—is to invest in licensing deals, branch plants, or subsidiaries. It's partly this pressure that pushed U.S. private investment overseas to a record \$4-billion increase last year. The tide is still rising.

• **Second Helpings**—Often a U.S. company will get a guarantee policy to cover a small licensing investment. A year or two later the foreign licensee will prove to the company that by making a larger equity investment in new plant and equipment, sales of the licensee—

and hence royalty profits of the U.S. license holder—could be doubled or tripled. Then the U.S. company will come back to ICA for a bigger policy to cover the new equity investment. Take two cases in point:

- The B. F. Goodrich Co. got a guarantee to cover an investment in a small marketing subsidiary in the Philippines a year or so ago. This proved so successful that Goodrich tied in with a Filipino company to manufacture tires and tubes, and now has over \$4-million worth of ICA guarantees covering its investments in the islands.

- Brown & Sharpe Mfg. Co., machine tool makers, started out in England with a small licensing and sales operation, expanded later into manufacturing. The company now has \$1.4-million worth of ICA guarantees.

- **Bandwagon**—The new interest of underdeveloped countries in qualifying for investment guarantees is easy to pinpoint. India, after two and a half years of soul-searching, finally has signed a convertibility guarantee agreement with the U.S. (BW-Oct. 12 '57, p89). Burma, Indonesia, Ceylon, and possibly other Asian countries, which have been hovering around the doorway of the program for some months, may now decide to follow India's lead. In Latin America, up to two years ago, only Haiti had signed an agreement. Since then 10 Latin American countries have signed up, and another half-dozen countries—including Brazil—appear just about ready to take the plunge.

- **Hurdle**—The big psychological hurdle that many proud, newly independent countries must clear in coming into the program is this: Under the investment guarantee agreement, the U.S. government inherits the rights of any U.S. investors after it has paid them off in dollars for any convertibility, expropriation, or war damage losses.

In the case of a convertibility claim, the U.S. government would take title to the local currency it converted for the American policyholder. In the case of expropriation or war damage policies, any claims of private investors would be vested in the U.S. government once the private investors were paid off. The agreements also contain provisions for compulsory arbitration of any disputed questions.

Some countries have felt that these provisions could lead to infringement of their sovereignty by the U.S. **END**



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In Washington

AEC Clucks Reassuringly Over Long-Range Effects of Fallout

The Atomic Energy Commission this week published a new paper on radioactive fallout and its probable future effects on the world's population in both present and unborn generations. The general tenor of the paper was reassuring.

Prepared by AEC's advisory committee on biology and medicine, the document concludes that harm from nuclear weapons tests is so small as to be acceptable when balanced against the demands of national security. In an "on-the-other-hand" view, it recommends that "tests be held to a minimum consistent with scientific and military requirements"—something AEC says it already is doing.

With the announced intent of correcting public confusion, the committee says that the rate of human exposure is "well within tolerable limits" and, most important, will remain tolerable for the indefinite future—assuming continued nuclear tests at the relatively high rate of the past five years.

It says that over-all effect as to life shortening "can only be extremely small—a few days at worst." As for genetic damage, the committee concludes that fallout at current rates over a "great many generations" might cause the birth of 160 to 800 defective children a year in the U.S., compared with 80,000 annually now as a result of natural genetic defects.

Only the U.S., Russia, and Britain now test nuclear weapons. The committee says other nations may eventually come by nuclear arsenals and "in time, the situation may well be serious."

Highways Program Invests "Savings" In Another Parcel of Roadbuilding

Two thousand new miles of highways have been allocated to the interstate highway system, but not all will be paid for at the present ratio—\$9 of federal funds for every \$1 of state money.

About 1,102 miles have been parceled out by the Bureau of Public Roads due to mileage "savings"—resulting from straightening out and otherwise shortening routes between cities since Congress established the 40,000-mile system after World War II.

Among the routes that rate the 90-10 financing is a 431-mile strip linking Canton, Ohio, to Charlotte, N. C., via the West Virginia Turnpike. This will help link the Great Lakes cities with Florida and the South—and ultimately should help the ailing turnpike. Other new routes include Pittsburgh to Erie, Pa. (102 miles); San Antonio to Corpus Christi, Tex. (143 miles); Nashville to Cairo, Ill. (170 miles); Ogden to Echo Junction, Utah (40 miles).

The other 1,000 miles that have been allocated include routes connecting Denver to Cove Fort, Utah; Fargo, N. D., to Sioux Falls; Ellensburg, Wash., to Pendleton, Ore.; and Baton Rouge to Mobile. It would require new Congressional legislation to make this mileage eligible for 90-10 financing—which is the hope of congressmen who originally succeeded in getting the mileage voted on to the system.

Congress and the Justice Dept. Both Focus on Oil Pipelines

The Justice Dept. is now looking probingly into all crude and product pipelines jointly owned by major oil companies.

This nugget of news emerged from testimony of Victor R. Hansen, chief of Justice's Antitrust Div., before the House antitrust subcommittee headed by Rep. Emanuel Celler (D-N. Y.). Hansen was answering questions on how Justice polices a 1941 consent decree affecting 20 oil companies and 52 pipelines under their ownership. At the time, the companies were charged with making unlawful rebates.

Celler's group plans to make a thorough study of consent settlements under both Democrats and Republicans, a popular way to dispose of antitrust suits "out of court." The current concern is oil pipelines. Celler is suspicious because in 16 years since the decree was signed, antitrust lawyers have never found it necessary to go into court to enforce compliance with its terms.

Government Lifts the Interest Lid To Lure Angels for Federal Building

To spur construction of some of the federal buildings it needs around the country, the government has withdrawn the 4% interest ceiling on lease-purchase projects.

In a lease-purchase deal, an investor pays for the building and then sells it, on the installment plan, to the government. The only trouble has been a big one—the interest rate has been too low to attract investors. As a result, only one such project—a \$2-million post office-courthouse in Rock Island, Ill.—has been put up.

Now that the 4% ceiling has been removed, the General Services Administration can dicker for contracts at the going money market rate. This week, it started a search for investors who might be interested in 10 of the 97 authorized projects. Another 30 may be advertised before yearend.

Two things led to the Administration's step:

- Most important in the long run, a fear that Congress might authorize direct appropriations (perhaps \$1.5-billion or even more) to pay for needed buildings. That would put a new strain on the \$275-billion national debt limit.

- Pressure from members of Congress, eager to get authorized projects under way in their home districts. Some had been hanging fire since 1955.



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AT THE WHEEL, teenagers get the feel of the 1958 Fords at a press preview. Ford's aim: to

Catching the Customers at the



AT A BRIEFING, 145 teenage reporters hear talks and ask questions. A four-year college scholarship will be the prize for the best news story of Ford's press party.

Ford Motor Co. is only one of many companies that are aiming directly at the big, growing teenage market.

"When we sell a car, we have a seven-out-of-10 chance of repeating the sale. We want to sell you teenagers a car."

With these words, Walter J. Cooper, general sales manager of the Ford Div. of Ford Motor Co., explained what lay behind the extraordinary press preview of its new lines last week (pictures). What made this preview different was the presence of 145 high school youngsters, brought to Detroit at Ford's expense, in addition to the adult reporters who routinely cover such affairs. It was probably the most elaborate, though by no means the most extensive, pitch an automobile company has yet made to capture the allegiance of the nation's teenagers.



catch tomorrow's market while it's young.

Most Critical Age

Ostensibly, the two-day excursion was a sort of seminar in communications. The youngsters were picked by hometown newspapers the country over. The lure was a grand prize of a four-year college scholarship for the best news story on the event.

The teenagers—struggling to maintain an air of insouciance—crawled in and out and under the cars and the stripped chassis that showed construction features. They bounced on the fenders, honked horns, raced engines, and fine-tooth-combed four cars in a contest to find deliberate flaws. And, hit of the program, they got to drive the models on Ford's test tracks.

The event wound up with a press conference, in which the kids gave the company a harder time than the adults. "How does the labor union react to quality control measurements?" They wanted to know. Why did Ford turn down Walter Reuther's "proposal to curb inflation"? Did the speech of Ford

financial vice-president T. O. Yntema about "monopolistic labor" unions represent company policy?

- **Hot Market**—The reason for the shindig was clear. There are, by rough estimates, about 5.5-million auto drivers under 19 years old. Until two years ago, most of them who bought their own cars chose a used Ford as a matter of course. Then Chevrolet jumped into the battle for the youth market.

The prime reason for Ford's popularity was the V-8 engine, admired by teenagers for its power and pep. Neither Chevrolet nor Plymouth had it in bygone years. When Chevrolet came out with a V-8 in 1955, it deliberately set out to create the image of a "hot car" to attract the young market. Ads for Chevy's factory-sponsored racing team featured these words. In 1956, they were bragging, "The hot one is even hotter." This theme had tapered off even before the new safety resolution of the car makers (BW-Jun.15'57, p76)



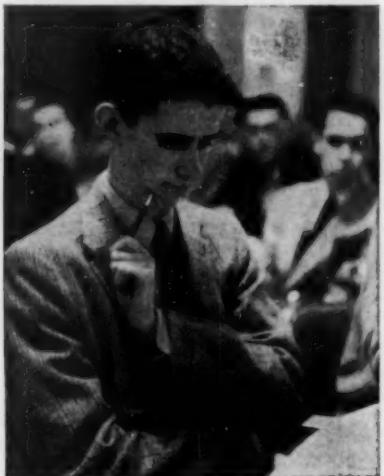
UNDER THE HOOD, boys look knowingly behind the car's outward appearance.



NOTES, NOTES leave a girl reporter weary but still looking for new angles.



CANDID SHOTS put many of the young photographers into cramped positions.



PENSIVE high school newsman ponders one of the technical details shown by Ford.



WORKING PRESS privileges were provided for the school editors: typewriters, telephones, stationery, and work tables.

-because Chevrolet figured it had accomplished its purpose.

• **Soap Box Derby**—In an indirect way, Chevy had been courting the teenager for some 20 years, through the All-American Soap Box Derby, sponsored jointly by Chevrolet and newspapers. Chevy's only link with the contestants is that they get their entry blanks at Chevrolet dealerships. By now, it has become an international institution, with entries from as far as West Germany and Ireland. The company estimates that 50,000 boys compete each year and that about 3-million people witness the contests. Since the derby started in 1934, the company has spent more than \$15-million on it.

There are other echoes of the interest of the car makers in the young. The Fisher Body Guild awards college scholarships for design and construction of model cars. Since 1930, the Guild has awarded 179 scholarships; about 400,000 boys compete each year. One result: More than 200 former Guild members work for Fisher Body; 35 out of 100 General Motors stylists are former members.

Last week's event is only the latest sign of a fast-growing pattern. U.S. industry is aware, as never before, of the value of cultivating that mercurial and potent horde of customers—the teenage market.

I. The Reason Why

Sheer statistics do much to explain this concern. Right now, according to Census figures for July, 1957, there are close to 12-million people in the 15-to-19 age bracket alone. Then you have to add a hefty chunk from the nearly 15-million 10-to-14 group, to get something like 16-million to 17-million teenagers.

But this is only the beginning. The famous Depression trough in population has until recently kept the teenage group relatively small. Now the huge war and postwar baby crop is growing up to this magical period. Census Bureau projections indicate a 53% increase in the 13-through-19 group from 1955 to 1965, against a total population increase of 15%.

• **Spending Power**—As important as its numerical strength is the spending power of the teenage market. According to the Census Bureau, in 1950 nearly 24% of boys between ages 14 to 19 years were employed; about 15% of girls. Surveys for the Bureau of Advertising by Eugene Gilbert & Co., which specializes in the youth market, indicate that 35% of teenage boys and 22% of the girls work year-round at part-time jobs. Gilbert figures that earnings, plus allowances, fill up the teenage pocketbook to the tune of some \$9-billion a year.

Besides their own income, the youngsters have unusually prosperous parents to tap for big-ticket purchases. Aaron Cohen, research director of Seventeen magazine, points out that a man with teenage children is at or near his own peak earning power. Furthermore, more working mothers have children in the teens than in any other age group.

Hence, the family has more than the average amount to spend. And apparently they spend it. Life magazine's recent consumer survey (BW-Sep.28 '57,p73) shows that families with older children (11 to 19 years) are the heaviest spenders for all goods and services.

• **Reefs Ahead**—It is true that some experts are flashing warning signals for the future. Economists and demographers have been talking for some time about the danger of overburdening a shrinking wage-earning group with hordes of non-earners—both at the bottom of the age scale and at the top (BW-Jul.20 '57,p82).

In the October issue of the Atlantic Monthly, Frank W. Notestein of the Office of Population Research at Princeton University notes that the scarcity of youngsters—reflecting the depression trough—has brought them unprecedented earning capacity, a fact that may help explain the earlier marriages. By 1965, when the postwar babies reach their late teens, beginners' jobs with good pay may become scarcer.

It is risky business to assess an economy's strength on the basis of population. But there is no doubt that as the depression trough moves up into the ages of 25 to 35, it means that fewer people will have to provide for more and more dependents.

• **Today's Market**—Right now, though, the dominant fact is that the teenager is just coming into his own numerically and is prosperous to an unprecedented extent. It is easy enough to see why industry is going after this market:

• For its own purchasing power and its effectiveness in making families spend.

• For the role it plays in family spending and its influence in the choice of brands.

• Finally, for its rich potential as an adult market tomorrow.

II. Who Cashes In?

Plenty of industries can testify right now to the benefits they gain from courting the youngsters. The record business is a good case in point. The teenagers' passion for rock-and-roll has not only contributed powerfully to sales of major record companies; it has been the market appetite on which independent companies have flourished (BW-Sep.7 '57,p48).

Apparel is another obvious beneficiary. Surveys made by Gilbert for

Seventeen indicate that the back-to-school market of some 3.5-million high school girls spends something like \$186 apiece on a school wardrobe—a total of \$627-million. In 1956, the much smaller group of college freshmen, some 272,000 girls, spent roughly \$115-million on clothing and equipment.

Now do the girls have all the say. The American Institute of Men's and Boys' Wear right now is in the midst of a campaign, Let's Dress Right, aimed at school and college markets. This promotion comes complete with fashion shows, staged at schools.

Simplicity Pattern Co. has for over 20 years made a heavy pitch for the school market. The company spends some \$700,000 a year on its educational program. This includes fashion shows at schools and for 4-H Clubs, and, within the past year, at Home Sewing Fairs, in which Singer Sewing Machine Co. shares.

• **Teen Chanel**—Industries less obviously dependent on the youth market have capitalized on it, too. Eugene Gilbert tells of clients such as Royal McBee Corp., which designed a whole line of portable typewriters in line with teenagers' wants; Hires Root Beer, which has spent some \$3-million promoting itself to this group; even appliance makers such as General Electric Co. have kept a sharp eye on teenagers in designing portable radios. Companies such as Chanel prepare special ads aimed at the young glamor girl.

The fact that girls are getting engaged at an earlier date has lured many manufacturers into the field. In 1955, the median age for a bride at her first marriage was 20.3—which means that a large proportion must have been teens. Hence, magazines such as Seventeen claim they are important media for silverware, chinaware, hope chests, linens, blankets, and the like.

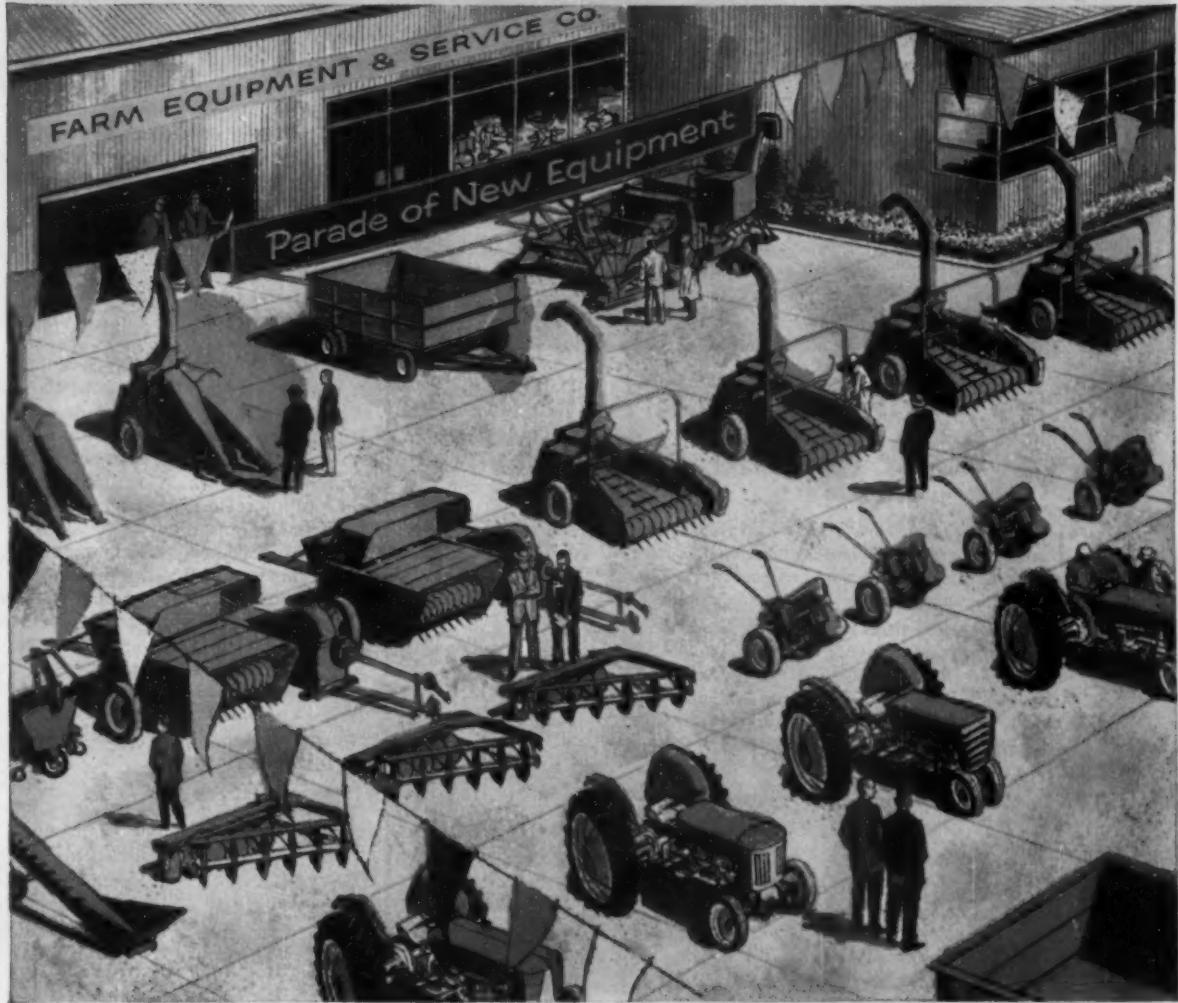
• **Stomach Appeal**—One of the latest industries to come into the picture is the food business. Having mothers who work means that the girl in the family has more responsibility in food buying—and the food processors and retailers are waking up to this potential.

For the past year, Seventeen has sponsored elaborate promotions, along with food processors and supermarkets, to educate the young on the services and wares they offer. Its current promotion, involving 10 food processors, is now under way in such chains as Kroger, National Tea, Loblaws, Colonial Stores, Co-op Shopping Centers. Retailers—after a special briefing—open their doors to the classrooms. Seventeen estimates that some 3,000 teachers bring 150 children apiece to the stores within a year.

With money in purse, and a zeal to spend, the teenager can prove a

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gold mine. But he or she is a special market, requiring special handling. Research concerns such as Gilbert and the Student Marketing Institute have thrived by finding out what the younger set wants and how to sell to it.

III. What Kind of Market?

Because it is young, it is experimental—willing to give things a try. It has few possessions to start with, has something of a collector's instinct. Since it is struggling through the years of change, it is an insecure market, with a strong bent to conform. It is acutely brand-conscious in such items as soft drinks and candy bars, less so in flashlights, mechanical pencils, even cameras and fountain pens. Brand loyalty is fairly easy to capture, not so easy to keep.

• **Coping With Fads**—Seventeen's Aaron Cohen adds that at least the staff side is far more independent than it used to be, more aware, more sophisticated. While the girls veer from fad to fad, they have a constant eye on their ultimate goal: marriage and household possessions.

The faddishness, which merely reflects the urge to conform, can make selling tough. A craze can raise an Elvis Presley to the heights, but it can also dump an idol in a moment. The surest way to find a market among teenagers, says Gilbert, is to sell a product to the leaders in school; what they approve counts far more than what Dad and Mom approve at home.

• **Age Consciousness**—Tobe, fashion consultant, points out that the teens cover a wide span of ages, and interests within the group vary with the age. The switch from the old four-year high school unit to junior and senior highs is one factor in pinpointing the separate elements of this broad group—and in complicating retailing practice.

Thus, the subteens (mainly aged 11 and 12, though with some 10 and 13-year olds thrown in) resent being lumped with the "children"; similarly, the teenager doesn't want to be confused with the subteen. Each age group and size group wants its own spot to buy in. Stores that have set up separate departments—containing everything in the way of apparel and accessories that would appeal to the particular group—have found it pays off.

It is a mistake, most marketers say, to play down quality with the idea of appealing to a limited purse. Teenagers are highly fashion-conscious. And whether it is in typewriters or clothing, they are trading up, like their parents.

Above all, urges Frances Hodges, merchandising director of Seventeen, the teenager resents condescension. "We never," she says firmly, "call them children." **END**

Man-made moon to go 18,000 miles an hour.

...and LINDE's HELIARC Welding holds it together

Millions of people will be thrilled by Project Vanguard, when man-made satellites are launched to circle the earth at speeds reaching 18,000 miles per hour. Yet, few persons realize the enormous amount of research and careful planning needed to make such an endeavor successful.

For instance, assembly of the internal framework of the satellite—shaped from extremely lightweight magnesium tubing—required special techniques. And the cover ring of the pressure chamber had to be joined to the ultra-thin shell with a perfectly smooth, airtight seam.

These, and other parts of the Earth Satellites, were accurately assembled with HELIARC Inert Gas Shielded Arc Welding. Developed

by LINDE, it employs a tungsten electrode with argon gas—99.99% pure—as a shield against contaminants.

HELIARC Welding has long been used by industry for production jobs involving hard-to-weld metals. It is one of several efficient, economical welding methods stemming from LINDE's research, development, and service in electric and oxy-acetylene welding and cutting fields. For more information, write Dept. K14 for a copy of the booklet, "Modern Methods of Joining Metals."

LINDE COMPANY, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. Offices in other principal cities. *In Canada: Linde Company, Division of Union Carbide Canada Limited.*

For the best in electric welding—look to LINDE!

The terms "Linde," "Heliarc" and "Union Carbide" are registered trademarks of Union Carbide Corporation.

Internal framework, cover rings, and other parts of the Earth Satellites were assembled with LINDE's HELIARC Welding.

Linde
TRADE MARK

UNION
CARBIDE





PROTECTION BEYOND THE ORDINARY

with RCA Electronic Metal Detector

Parents serve their children tasty Wheaties with confidence, knowing that the quality has been safeguarded every step of the way. At General Mills, every package of Wheaties and other food is electronically inspected before sealing by RCA metal detectors. No stray metal—magnetic or non-magnetic and no matter how small and well-hidden—gets by. Increasingly,

food processors as well as producers in such fields as plastics, paper, rubber, textiles, explosives and others, are using RCA metal detectors as a final measure of protection.

For free booklet on the uses of metal detectors, as well as information about other RCA electronic products, write Radio Corporation of America, Dept. YD-26, Camden, N. J.

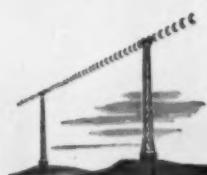
Electronic products for a thousand uses



RCA TV Cameras are part of a complete line of high quality broadcast equipment RCA supplies for radio and TV stations.



RCA Sound Systems are engineered to give the best in internal communications. Widely used in industry, education and commerce.



RCA Microwave provides point-to-point contact by radio signals. Applied by industry, government and other qualified users.



RCA Precision Instruments measure and test to laboratory accurate standards. Used in complex electronic applications.



RADIO CORPORATION of AMERICA

TMk(s) ®

In Marketing

FCC Sets Up Rules for Testing Pay-TV on Over-the-Air Basis

Over-the-air pay-TV moved another step toward commercial reality last week as the Federal Communications Commission announced rules for permitting TV stations to conduct market tests. Here are the principal regulations under which stations may apply to test pay-TV over their regular broadcasting channels:

- The test period will be for three years.
- Stations may test one or more methods. Leading contenders at present are the scrambled broadcast signal systems of International Telemeter Corp., Skiatron-TV, and Zenith Radio Corp.
- Test markets are limited to cities that have a minimum of four TV stations broadcasting a superior picture. Among cities qualifying for tests are such top markets as New York, Chicago, Philadelphia, San Francisco, and Los Angeles.
- Each system may be tested in as many as three markets.
- Stations must continue to broadcast the minimum hours of free programs.

E. F. McDonald, Zenith president, says the FCC order "means that this new broadcast service will get on the air in the reasonably near future." He adds that Zenith has "numerous applications from TV stations on file" and will begin preparations immediately to launch operations.

FCC stressed that it won't act upon stations' applications until March. This will give Congress a chance to legislate on the issues.

FCC says the tests should provide evidence on such pay-TV questions as the public reaction, effect on regular TV, the market operation and technical performance of the various systems, and the kinds of programs preferred. Following the test period, FCC will hold hearings to decide whether to authorize pay-TV on a permanent basis.

Justice Dept. Scowls at Two New Plans To Guard the Auto Dealer's Territory

Automobile dealers have again run into Justice Dept. opposition to their efforts to obtain some form of "territorial security," that is, exclusive selling rights for each dealer in his own franchise area. In response to a letter from the National Automobile Dealers Assn., antitrust chief Victor R. Hansen advised that in his opinion the two latest schemes for achieving franchised dealer protection "may violate the antitrust laws."

Territorial security clauses were dropped from dealer franchise agreements back in 1949 when the Justice Dept. indicated its disapproval. This summer, NADA tried another proposal to manufacturers (BW—Jul. 13 '57, p52).

The gist of NADA's plan was that manufacturers charge dealers \$100 more per car. A dealer would have this money returned to him for every new car sold in his area, no matter who made the sale.

Outsiders selling in his area would either have to pass along the added cost to customers or absorb it. The basic intention of the plan was to discourage cross-selling (a dealer's selling to a customer outside his own area) and bootlegging (a dealer's selling to an unfranchised dealer outside his area).

When manufacturers proved cool to the idea, a group of dealers, organized under the name Authorized Dealers Survival Assn., developed a variant of the idea whereby manufacturers would pay a 5% overriding bonus for all new cars and trucks a dealer sold to residents of and for the general use in his own franchise area.

At this point NADA made its request for a Justice Dept. opinion of both schemes.

ADSAs has decided to stop recruitment, and NADA is at present trying to cook up a new plan. However, aware that a poll a year ago showed dealers split on the issues, NADA says somberly, "without majority support and without public acceptance, no plan is realistic or susceptible of attainment."

Ford, Like Olds, Says New Models Are Engineered to Gulp Less Gas

Fuel economy was a sales theme at Ford's press preview last week, just as it was a feature of the 1958 Oldsmobile (BW—Oct. 5 '57, p52). The 1958 Fords will give up to 15% better gasoline mileage than the 1957 models, says Walter J. Cooper, Ford Div. sales manager, who this time played host to an audience of 145 teen-age reporters as well as the usual adult variety (page 84).

Whereas Olds sacrificed some speed to get a 20% better fuel economy, Ford maintains that its new engine will deliver a slightly smaller fuel improvement with no sacrifice of ground speed.

FTC Hits Another Cigarette Maker With Robinson-Patman Act Charges

The Federal Trade Commission last week added another cigarette maker to its list of tobacco companies cited for violating the Robinson-Patman Act. It charged that Brown & Williamson Tobacco Corp., makers of Kool and Viceroy cigarettes, violated Robinson-Patman by handing out promotional allowances to some of its customers without offering similar deals to other retailers on proportionately equal terms.

Thrifty Drug Stores, Los Angeles, for example, got \$15,835 for display, newspaper, and radio advertising in 1956, the complaint states. Similar allowances were paid to vending machine operators, FTC alleges.

In the past six months, FTC has brought similar action against American Tobacco Co., R. J. Reynolds Tobacco Co., Liggett & Myers Tobacco Co., Philip Morris, and P. Lorillard Co.

*Good-will
Ambassadors
that put
your product in
a "good
light"*



**NEW WINDGUARD
VU-LIGHTERS**

ONLY LIGHTERS THAT

NEVER GO DRY!

A replica of your product or trademark, inside the transparent plastic reservoir, will make new friends for you... more sales! Lightweight Vu-Lighters let you see when to refill before they go dry! Colorful bands and chrome trim. \$3.95 each, retail, Fed. Tax incl. Quantity prices upon request.



Distributed through advertising specialty jobbers. For details, write

VU-LIGHTER

A Division of *Scripto* Inc.
Box 4996, Atlanta, Georgia

CHARTS OF THE WEEK

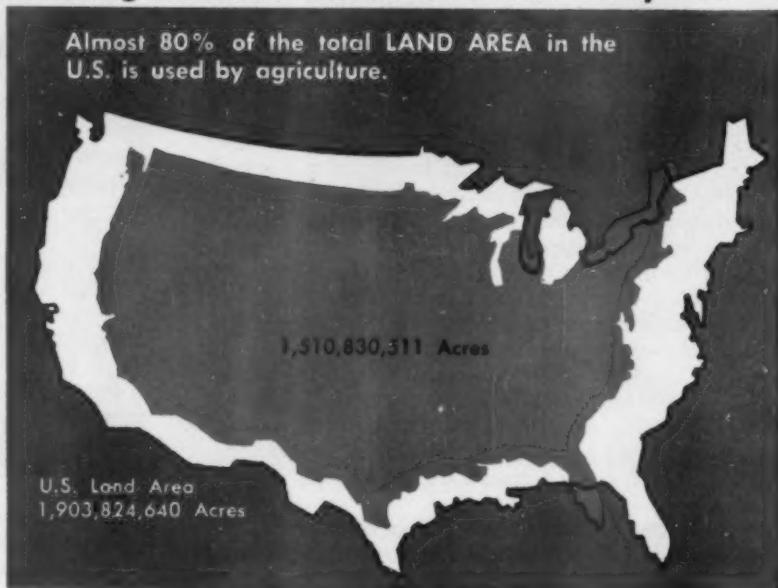
Agriculture in Today's Economy

How does agriculture in the U.S. shape up against other segments of the economy? How do farms compare with industry in terms of what they sell to and buy from each other? That's the story told in this series of charts prepared by the McGraw-Hill Dept. of Economics. It employs a comparative

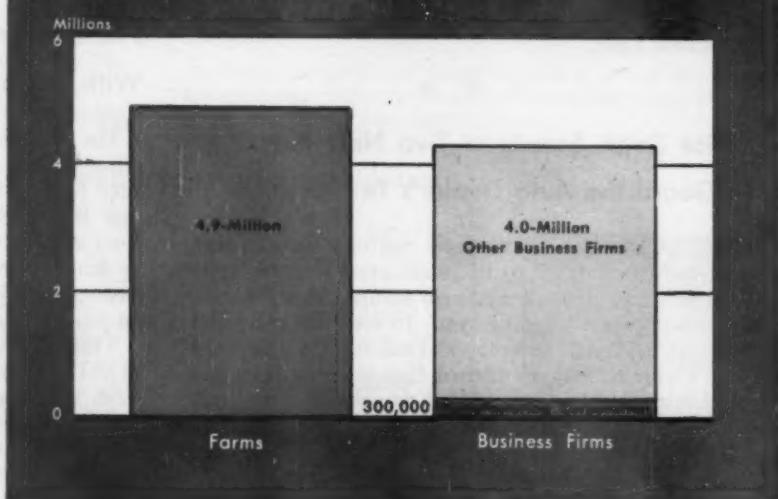
device developed by John J. Davis and Ray Goldberg in their book, *A Concept of Agribusiness*, published by Harvard School of Business Administration.

A year ago, the McGraw-Hill economists took a slightly different look at U.S. agriculture, focussing entirely on farm problems (BW - Jun. 9, '56, p 84).

Farming outranks business in some ways...



There are **MORE FARMS** than business firms in the U.S.



Turn to page 94



A. Howard Fuller, President, Fuller Brush Co., as photographed by Arnold Newman

Howard Fuller's brushmen ring 12 million doorbells with telegrams

"Fuller Brushmen make over 12 million calls a year," says A. Howard Fuller. "Keeping them supplied with the brushes, cosmetics, household cleaners and food supplements they sell is a man-sized job—you might say it's a *telegram-sized* job! We must be in constant communication with our more than 100 branch offices and 30 warehouses. We do business by telegram because there isn't a faster, more accurate way of sending facts and figures—of putting what's important in writing."

More than a million times a day, business finds it wise to wire. Telegrams quote prices, confirm orders, route shipments. Speed plus the written record make the telegram essential to American business.

WESTERN UNION
TELEGRAM

ON ANY OCCASION ...

IT'S WISE TO WIRE!

The man who reads dictionaries



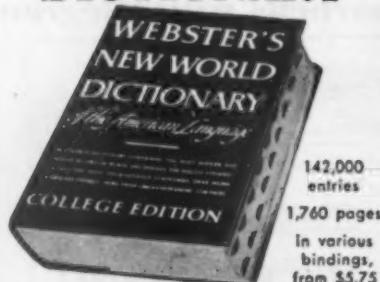
© Hal Phife Photo

HERBERT BAYARD SWOPE,
famous publicist and editor, says:

"**D**ICTIONARIES are always fascinating to me, and *Webster's New World Dictionary*, College Edition, casts this spell upon me with renewed strength. I have found the book simple, comprehensive, and done in a masterful style. Reading it fifteen minutes a day would tend to clarify everyone's language which, at best, is an imperfect medium for the expression of thought."

The name Webster alone on a dictionary is not enough to guarantee excellence of this kind. Visit your bookseller and ask to see —

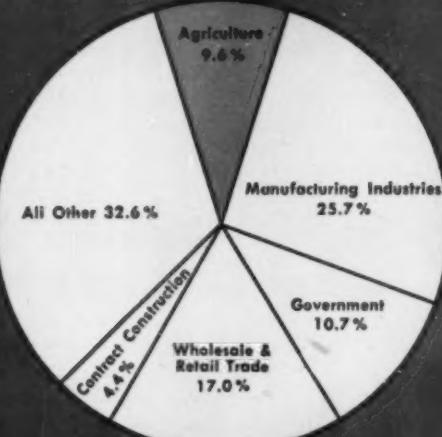
WEBSTER'S NEW **WORLD** DICTIONARY



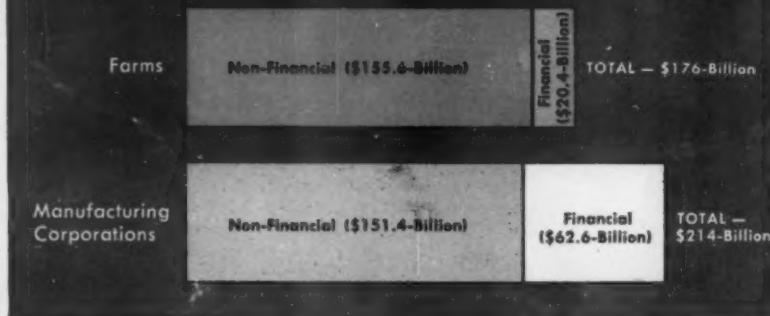
THE WORLD PUBLISHING COMPANY

But it lags in some sectors...

Farms employ only one in every 10 WORKERS.



TOTAL ASSETS of farms are smaller than those of manufacturing concerns, although farms have greater physical assets (chiefly real estate).



But agriculture's **NET SALES** are only one-tenth as great as manufacturing sales.



Turn to page 96

SHEAFFER'S shopping guide for business gift giving

for VIP's and
top prospects



Where only the very finest will do, Sheaffer's famous White Dot will make your gift a prized possession for years to come.

Top: Valiant ensemble, new Snorkel Pen with matching pencil, \$27.00.

Bottom: Desk set in jet crystal with Snorkel Pen and perpetual calendar, \$30.00.

for valued customers



Your choice of Sheaffer's quality will be a constant reminder of your appreciation and esteem.

Left: Statesman Snorkel Pen, \$15.00.

Center: Admiral Snorkel Pen, \$10.00.

Right: New Cartridge Pen, \$8.75.

for low cost
reminder advertising



It costs no more to give the added prestige of Sheaffer's famous name and quality.

Left: Pearl center automatic pencil, \$1.95.

Center: Sheaffer's Feathertouch Ballpoint with sterling silver tip, \$2.95.

Right: Desk set with cartridge pen, \$4.95.

All Sheaffer
business gifts
attractively packaged

For every occasion and every budget, your gifts can be both useful and far out of the ordinary. For Sheaffer—and Sheaffer alone—offers a complete selection of fine writing instruments in every price range. And only Sheaffer distinguishes your gift with the world's most respected name in writing. For Christmas, employee awards, advertising and *every* gift need, turn to Sheaffer. Mail the convenient coupon right away for complete information.

SHEAFFER'S

©1957, W. A. SHEAFFER PEN COMPANY, FORT MADISON, IOWA, U.S.A. • IN CANADA:
GODERICH, ONTARIO • IN AUSTRALIA: MELBOURNE • IN GREAT BRITAIN: LONDON

Business Gift Dept. BW 10-57

W. A. Sheaffer Pen Co., Fort Madison, Iowa

Please rush your list of writing instruments, prices, and complete details on Sheaffer's business gift plans. This request does not obligate me, or my firm, in any way.

Name _____

Position _____

Firm _____

Address _____

City _____ Zone _____ State _____

Whatever

the

horsepower



—there is
a right
wire for it

—And there is one dependable source—with over 50 years experience—to meet your every need. Specialized new wires are engineered for every phase of the industry—and Belden quality assures lowest over-all cost on your production line.

If it's worth engineers' time
It's worth engineered wire

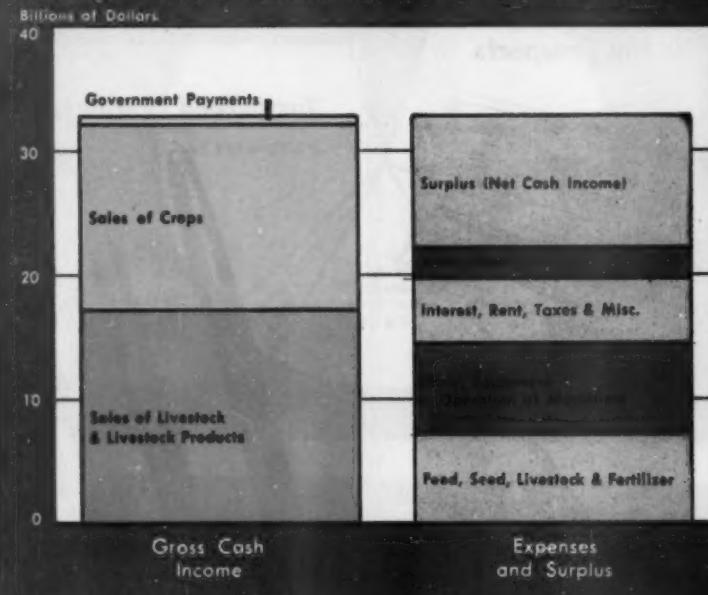
ONE SOURCE
ONE QUALITY

Belden
WIREMAKER FOR INDUSTRY
SINCE 1902
CHICAGO

Magnet Wire • Lead Wire • Power Supply Cords, Cord Sets and Portable Cord • Aircraft Wires • Welding Cable • Electrical Household Cords • Electronic Wires • Automotive Wire and Cable

How the farm dollar is earned and spent...

Farmers receive a **GROSS CASH INCOME** of \$31.7-billion (through sale of their products and government payments). They lay out \$22.2-billion in **PRODUCTION EXPENSES**. That leaves a **NET INCOME** of \$9.5-billion.

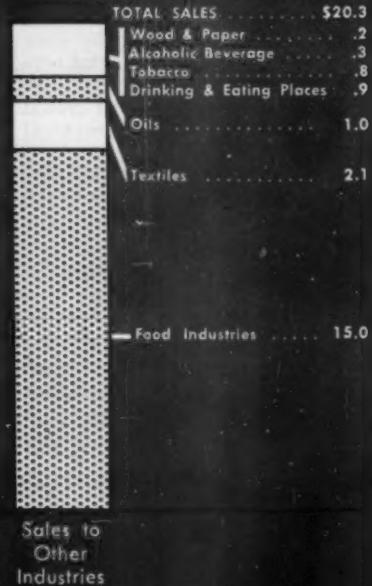


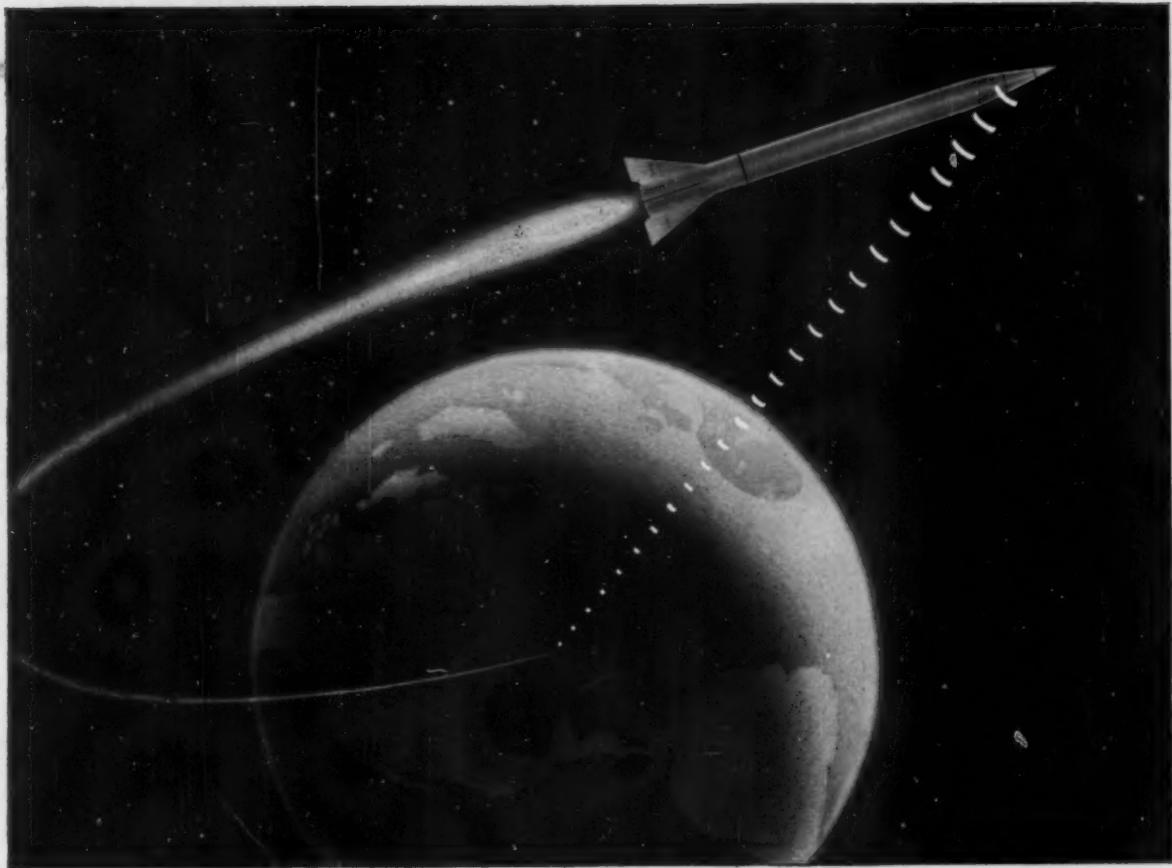
AGRICULTURE
BUYS \$17.1-billion
of goods and services
from industry

and SELLS products
worth \$20.3-billion to industry.

\$17.1 TOTAL PURCHASES

5.0 Wholesale Trade
.8 Power
1.0 Container
1.1 Transportation
1.3 Fertilizer
2.7 Feed Manufacture
3.7 All Other Industries
6.0 Machinery & Automatic Power





MISSILES REPORT FROM SPACE VIA BENDIX TELEMETRY SYSTEMS

Missiles report their in-flight progress by transmitting complex radio signals which are received and recorded permanently at ground stations. The Bendix Pacific Division is America's



Bendix Telemeter used in long range missiles

No. 1 source for these telemetering systems and they are in use on many major missile programs.

These records give "earth-bound" missile engineers the complete story of each flight. As many as 500 different channels of information can be transmitted—such as speed, direction, acceleration, roll, vibration and temperature which are vital to accurate evaluation of the missile's performance.

In addition to airborne telemetering, Pacific Division has developed similar reporting and control systems known as ELECTRO-SPAN for remote functions in industry. Using any communication link, these sys-



Bendix Telemeter Ground Receiving Station

tems measure and control pumps, valves, motors, flow, temperature, pressure and liquid level. For information on any telemetering application you are invited to write our Pacific Division, North Hollywood, California.

A thousand products



a million ideas

REGIONS



Negro has a bigger income . . .



. . . a better job in industry . . .

Despite Tension, the South

Mob scene at Little Rock (below) was a sample of the kind of violence that could make industry shun the South. No one knows yet whether it set back Arkansas' industrialization plans.

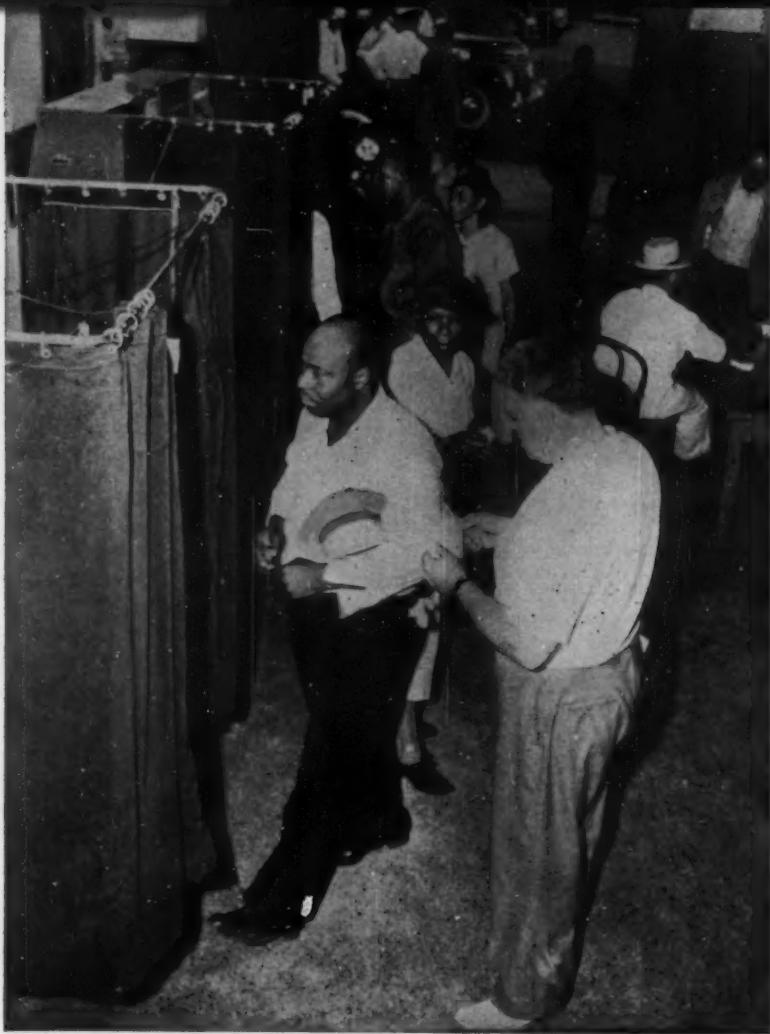


● So far, interracial problems have had little impact on the region's growth.

● Since "desegregation," the South has enjoyed a record-shattering industrial expansion.

● Manufacturers who plan to locate there still feel the area's cheap labor and abundant water supply offset the headaches of integration.

● Local economists, however, fear that interracial violence at Little Rock (left) and other hotbeds may scare off new industry.



... a louder voice in politics.

Keeps on Gaining

Racial controversy in the South may have "tremendous economic implications" but, so far, it has had little or no perceptible impact on Southern industrial development and business.

That's the opinion of Southern businessmen and regional economists. It's their answer to questions of how the South's expanding economy may be affected by resistance to integration. And it's borne out substantially—although not without dissents—by those watching the Southern situation closely from other parts of the country.

• **Not So Acute**—Last week, Ellis Arnall, former governor of Georgia and now one of the South's leading corporation lawyers, expressed surprise at reports of the area's "pinched" business and industrial development—mostly originating outside Dixie.

Really, he said, "one hears a good deal more about the South's problems outside the South than in it," and the

problems are "not so acute as outsiders would have you believe."

Gov. Luther H. Hodges of North Carolina, in New York last week contacting business and industry in connection with his state's development program, went a step further. He noted that talk of the economic aspects of integration strife isn't coming from industry offices in which decisions on expanded or new factories are being made.

"I personally contacted officers of between 50 and 60 major corporations considering expansion in the South. Members of my staff talked to many others. Not one of all those we interviewed injected the integration issue as a factor," Hodges said.

Surprised, he asked one corporation executive whether the scattered race troubles in the South might affect a final decision on the location of a proposed plant. The answer was: No, the decisive factors are raw materials, labor

supply, water power, and transportation.

• **General Viewpoint**—That's the general viewpoint throughout the South. BUSINESS WEEK reporters in every business and industrial center throughout the area have found that race troubles, so far, have had almost no impact on the region's economy. Incidents have been scattered and localized. For the most part, disruptions caused have been short-lived. Generally, they reported last week:

- There are no indications that industry is failing to locate in the South because of race tensions. To the contrary, new plants are being established at a near-record pace and the outlook is for this trend to continue—with factors favoring plant locations in Dixie outweighing possibly adverse social factors. "The money angles are the ones that count," a reporter in the Deep South commented.

- Business is holding up throughout Dixie, as well as or better than nationally. Only prolonged strife that isn't community-centered—as now—but Southwide is likely to cause any race-influenced downturn in general business. Nobody expects anything like this to happen.

- Race tension has definitely affected relations between whites and Negroes in the South. Some mutual trust and respect have been lost. So far, this hasn't materially affected economic relations between the races. For instance, nowhere in the South has credit for Negroes (a traditional economic weapon against them) been made any tighter because of integration troubles. The probability that interracial channels of business will be affected are now remote. But, leaders of neither race discount the possibilities of "temporary disruptions if there are widespread flare-ups" in Dixie.

- Over the long term, the impact of the race situation may be for the better—not for the worse. The South is changing, although in just what way and to what extent remains to be seen. The Negro is making steady, substantial gains, not so much social as economic. Ultimately, the Negroes' economic progress in Dixie may do more for their social advancement than the present and prospective legal pressures for integration.

- Finally, throughout the South, white businessmen are taking a generally moderate position. Most undoubtedly oppose school integration, an inflammatory, highly emotional issue. But they fear what one described as "runaway problems" that could come if extremists on either side aren't curbed. They are working—quietly, for the most part—for what they describe as "our healthy, sound status quo," in which the Negro will be helped toward "better conditions and more money," but not—immediately—toward any sig-

nificant degree of social integration. A substantial Negro business bloc is working toward much the same thing. A Negro banker commented, "Our stake, financially, in the continued steady progress of the South is much greater than most—North or South—know today."

• **Looking Back**—A year ago, the mill town of Clinton, Tenn., was a hotbed of race troubles. Violence erupted when school integration was attempted. Tennessee National Guardsmen had to be mobilized. Merchants were boycotted. Store windows were smashed.

Businessmen mobilized. Whether integration was right or wrong, they said, they could not tolerate the use of violence and economic pressures. In a municipal election, they defeated White Citizens' Council-backed candidates at the polls. A *BUSINESS WEEK* reporter commented from Clinton:

"The situation [here] might be an indication of what can be expected in other communities where there is pressure to integrate and hot-tempered opposition. There might be violence and economic boycotts at first, then a return to normal under the influence of businessmen aroused by the threat to their investments. Conditions were undeniably bad here a year ago. Now, there are no signs of unrest or of economic aftereffects of race troubles.

"Folks hope that the peace will continue. Of course, you can't know that it will until the situation clears up throughout the South."

I. Impact on Industry

A few days after federal troops took their positions around Central High School in Little Rock, a disillusioned, "embarrassed" Winthrop Rockefeller warned that the integration crisis had hurt Arkansas' hopes for industrial expansion.

What he said carried weight. Rockefeller, a resident of the state since 1953, is chairman of the Arkansas Industrial Development Commission. Since his appointment to the agency by Gov. Orval Faubus, he has spearheaded efforts to bring new plants into his adopted state.

As far back as April, 1956, Rockefeller—who describes himself as "a gradual integrationist"—told a Little Rock group that the racial segregation issue is one of the biggest roadblocks in the way of industrial development in the South. He warned that industry would avoid Southern states that take an adamant position behind continued race separation.

• **Reverberations**—What Rockefeller said reflected the concern felt by industrial development people in many parts of the South. But, in the tenseness and emotionalism of Arkansas,

his words kindled new, heated flare-ups.

Newspapers raked over the messy details of Rockefeller's divorce from Barbara (Bobo) Rockefeller two years ago, and commented that he is now "trying hard to live down his playboy past." They noted that he had spent \$1-million on "a fabulous farm which he calls Winrock," his home in Arkansas, and said editorially that "it is doubtful that [he] could have gained a deep understanding of the people of Arkansas" in this way, or "qualified as a spokesman for the South simply by investing money in an Arkansas farm."

A co-worker in the industrial development field in the state took issue with Rockefeller, commented: "I don't know what Winthrop has heard, but I believe that he is over-concerned. The people I have been talking with (concerning plant locations in Arkansas) haven't mentioned the Little Rock situation."

Gov. Faubus, possibly evaluating the Rockefeller name, money, and family contacts, chided his industrial development chairman in the gentlest of words. "Mr. Rockefeller has always been circumspect," the governor said. "To do a good job in this field, you have to be circumspect."

Gov. Faubus was not so mild in his reference to one voice raised in support of Rockefeller's warning—that of Dr. Charles H. Carpenter, of Little Rock, an industrial consultant.

Carpenter said that the Central High School turmoil was "a terrible misfortune" for Little Rock and Arkansas; he added a "personal fear" that integration resistance that erupted into violence had scared off industries and "cost the state thousands of new jobs."

The governor denied this categorically, and denounced Carpenter.

Anti-Faubus organizations pressed Rockefeller to resign and unloose a new blast at the state's die-hard segregationists; he refused. The Arkansas campaign for new industry would go on, he said, although the Industrial Development Commission isn't "doing anything special at this time."

• **Typical Sentiments**—The Arkansas debate over what—if any—impact race problems are having on Southern industrialization is typical of what is being heard throughout the Deep South. The debaters are different. But the words are the same.

In Georgia, for instance, editor Ralph McGill's loud alarms in the Atlanta Constitution over possible losses of industry because of the integration were countered by Gov. Marvin Griffin, who commented: "I see no reason to fear a boycott from anyone or a slackening of industry's movement to Georgia."

Governors of North Carolina and South Carolina echoed this, but Gov.

Frank Clement of Tennessee took an opposite position: He feels that "racial unrest in the South may be hurting Dixie in its quest for new industry."

And Gov. LeRoy Collins of Florida, the new chairman of the Southern Governor's Conference, warned:

"If the South should wrap itself in a Confederate banner and consume itself in racial furor, it will surely miss its greatest opportunity for channeling into a wonderful future the products of change now taking place."

• **Effects on Industry**—These are all expressions of opinion. At this point, probably nobody really knows whether today's race problems in the South will stultify its campaign for industrial growth.

The crescent of states below Mason and Dixon's Line is having one of its best years of industrial growth. The Southern Assn. of Science & Industry, a nonprofit, nonpolitical association, reports that "sporadic outbreaks of racial tension in the South have had no measurable effect on the development of industry in the region."

Since the Supreme Court's school integration decision "led to increased tensions," the South has enjoyed "two consecutive record-shattering years of industrial expansion," according to SASI's records. Last year, 1,059 new plants were established in the South. In the first eight months of this year, 862 have opened doors. Dr. Frank Soddy, chairman of the association, predicts that the industrial expansion program, now going strong, will gather further momentum next year and beyond.

SASI has checked reports of plant cancellations and says it hasn't found "one case . . . where a plant was relocated from one place to another because of racial strife," or where plans to locate a plant at a particular place have been canceled because of racial strife.

The Federal Reserve Board in Atlanta confirmed that nothing is happening in the economy of the South that can't be explained "adequately by economic indices without regard to race problems." Bank officials noted that business and capital expansion are slowing down nationally, pointed out that if there are plant cancellations or delays in the South, doubts about 1958, the fact that money to expand is harder to get, and the general tightening up nationally on investments are probably more important as factors than racism.

And the Southern Assn. of Planning & Development Agencies, which covers a 16-state area, criticizes as "just a propaganda device" scattered reports that industries are avoiding the South because of racial troubles.

• **Weak Spot**—There is a big weak spot in these protests that racism hasn't



Chemistry helps them both to grow

When boys and cornstalks both grow strong and healthy you can be sure that their "diets" contain adequate amounts of phosphorus. For phosphorus is essential to healthy growth in plants, animals and humans. Plants obtain it from the soil, animals and humans from the foods they eat. To help keep crop and pasture lands resupplied with this vital element, Cyanamid mines phosphate rock from natural deposits in Florida and processes it for use by plant food manufacturers.

Cyanamid's facilities for making triple superphosphate—phosphorus in its most efficient form for plant foods — are the most modern in the world.

In this way Cyanamid chemistry helps farmers produce more and better crops, meats and dairy products—and thus helps America make fuller and more profitable use of a vital natural resource! American Cyanamid Company, 30 Rockefeller Plaza, New York 20, New York.



HELPING AMERICA MAKE BETTER USE OF ITS RESOURCES



How to hurry the highways—and

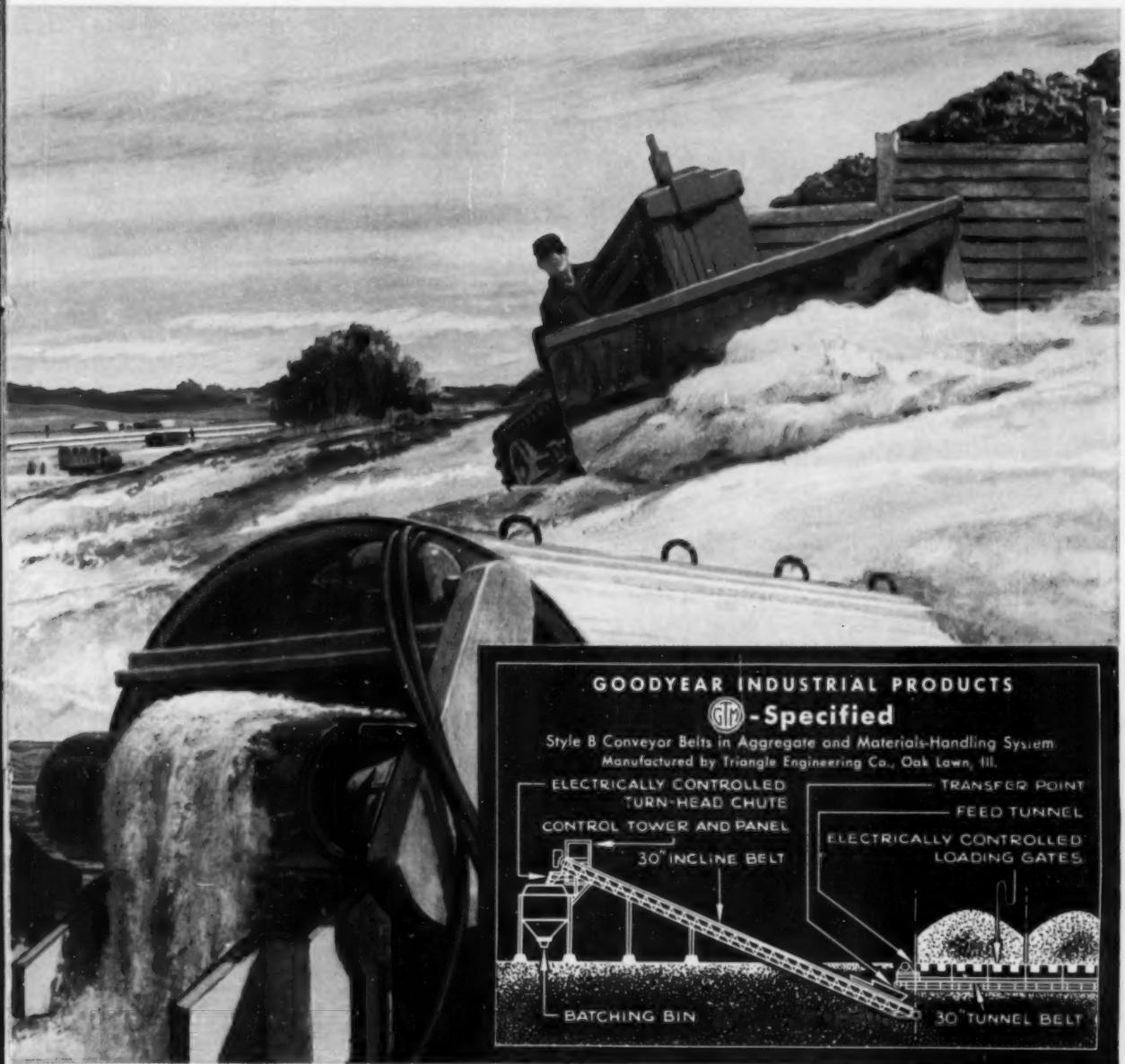
Rushing the road-building program — a "must" if America's highway-borne economy is to flourish — is of top-priority concern to all of us. But keeping down the cost of this gargantuan project is equally important — as every taxpayer will agree.

So new money savers cut quite a figure in highway construction equipment today. And an enthusiastic welcome awaited the portable, conveyorized concrete-making plant — recently developed by a Midwestern firm with a major assist from the G. T. M.—Goodyear Technical Man.

Wiping out time-eating operations, this new materials-handling system does the job in push-button fashion. Sand,

aggregate and cement are fed — in controlled sequence — through gates into the 280-foot steel "tunnel." There they ride on one of the G.T.M.'s Style B Conveyor Belts — constructed for long life under heavy loads and severe abrasion. A second, interconnected belt — also Style B — carries them up to the mixer.

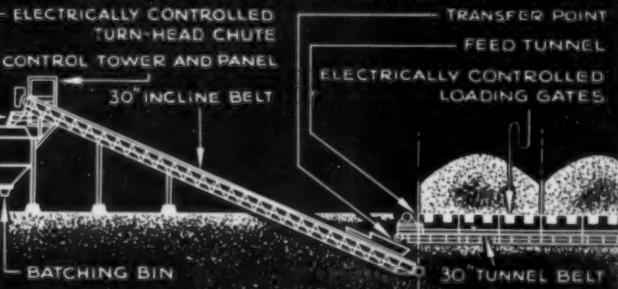
Here's the big payoff: this 525-ton-per-hour concrete-maker turns out the material for 1 mile of 24-foot span highway every day — at twice the speed of old methods. And it does that at 1/3 "normal" concrete-producing costs — eliminating two \$40,000 cranes — saving 75% on labor-slashing maintenance by 85%.



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Style B Conveyor Belts in Aggregate and Materials-Handling System
Manufactured by Triangle Engineering Co., Oak Lawn, Ill.



ease the load on the taxpayers

Need some technical assistance with a pet cost-cutter or labor-saver you have in mind? If it uses industrial rubber products of any kind, the G.T.M. is your man. And you can reach him — in a hurry — through your Goodyear Distributor—or by writing Goodyear, Industrial Products Division, Akron 16, Ohio.

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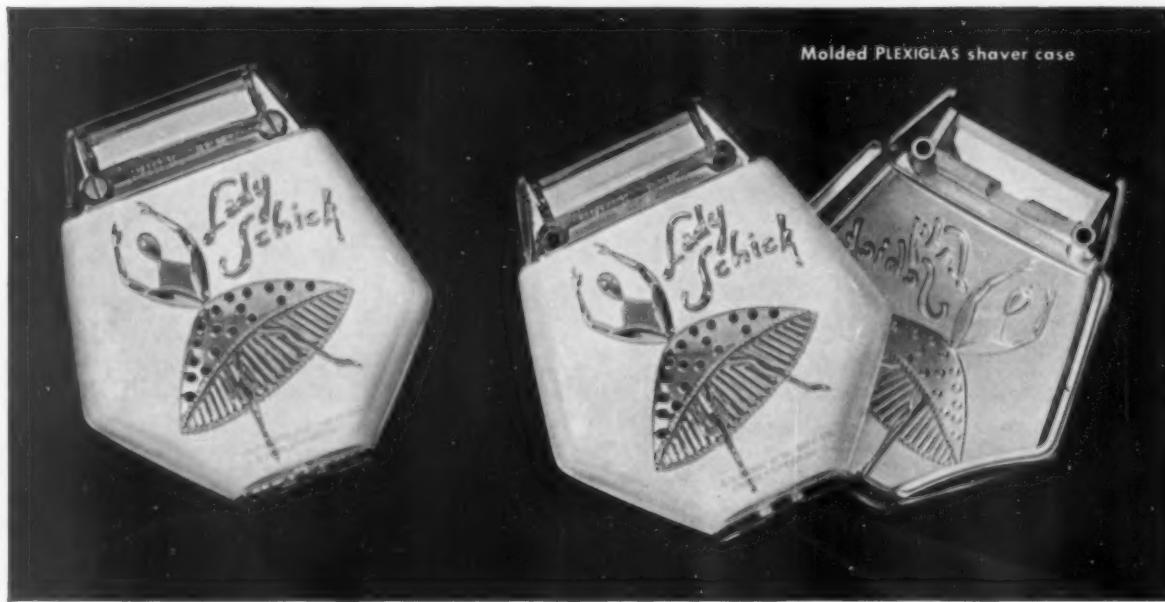
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hurt the South's bid for new industry.

Several weeks ago, C. O. Wanvig, president of Globe Union, Inc., announced in Milwaukee that a new \$1-million plant would be built in Florida, near Tampa, largely because Gov. Collins' "moderate" leadership is "helping to provide a type of industrial climate which will assure continued economic progress and opportunity for the people of your state."

Integrationists hailed the announcement as evidence of what an enlightened attitude in the South could mean, economically. Segregationists scoffed. Obviously, they said, Globe Union had made its decision long before Collins took the position he did at the Southern Governors' Conference at Sea Island, Ga.

The reverse is just as true. The fact that there have been no plant changes so far may not be significant; substantial time and money go into any decision on a new plant location, and any later revision of plans can be prohibitively costly.

Where plans for new plants have advanced too far for changes, factories will be built, racism or none, and companies will yield, albeit reluctantly in many cases, to local traditions on employment and race separation.

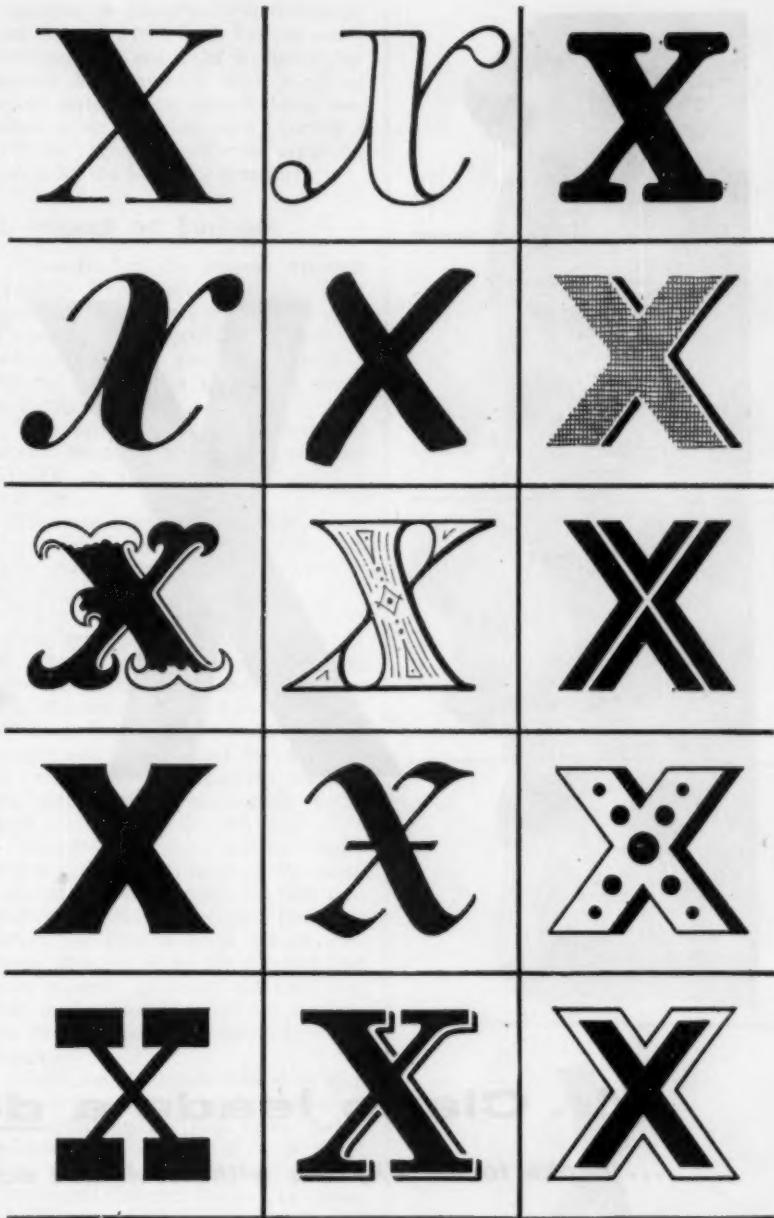
• Showdown—The showdown for the South will come on decisions now being considered, to be announced later. Undoubtedly, despite its optimism, the South will lose some plants that it might have won if Little Rock and other incidents hadn't worried top management somewhere.

Just a week ago, a major corporation interested in a new Southern plant asked the Urban League, an inter-racial organization, to recommend an area where race strife might be avoided.

This corporation manufactures trademarked consumer products. As are others in the consumer products field, it is extremely sensitive to anything controversial that might interfere with production or—in the event of a boycott—with its sales. And, today, race attitudes are as hotly controversial in most of the South as any issue could possibly be.

Many in the South minimize this as a factor in plant location. But, a large corporation in Little Rock that employs only white workers in its consumer products manufacturing plant is today sweating out an almost impossible problem: It is under pressure from Negro organizations to begin integrating Negroes into its plant, and on notice from segregationists that it will run into trouble if it does. Obviously, one way or the other, it will be hurt.

If the consumer products industry's reaction to such a situation as this needs underscoring, this should do it:



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- Multiplication sign
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X



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The gentleman in the red suit calls on the toy industry before August. But one smart manufacturer discovered how to expand his selling season *almost to the night before Christmas!* While competition slacked off, he sought and delivered new orders...he refilled old orders...*overnight, anywhere in the country!* It was like adding an extra Christmas season. And it was done by using Air EXpress, the only complete door-to-door air shipping service to thousands of cities and towns.

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A few years ago the anti-Communist publication Red Channels attacked the employment of leftwing performers on television, and consumer products sponsors, worried over the possible impact on their market, backed away from any entertainers having even the faintest pink glow to their records. They feared controversy then. They still do. And, fearing it, many will turn away from any Southern community that has—or is threatened with—race friction.

• **Race Is Not an Issue**—Paul Sieverling, secretary of Birmingham's aggressive, and successful, Committee of 100 seeking new industry came close to echoing Winthrop Rockefeller's position on this a week or so ago. Sieverling said race has not been an issue in talks with any industries considering locating in the Birmingham area although, he added, "undoubtedly race unrest may have deterred some manufacturers from locating in the South." And he commented, "Naturally, a manufacturer wants to go into a peaceful community."

This is particularly applicable to consumer products manufacturers. It doesn't apply so firmly to the basic industries, in which products carry no distinguishing mark—or target for racist boycotts.

The South today probably offers more to new plants in basic industries than any other region. Roger M. Blough, chairman of U. S. Steel Corp., acknowledged this on a recent visit to the Corporation's subsidiary company in Birmingham. "Climatewise, marketwise, and employmentwise, the South is a good place for industry," Blough said. Keen Johnson, vice-president of Reynolds Metals Co., expressed almost the same thought in predicting that Southern industrial expansion will continue "highly stimulated in the next few years."

• **Big Asset**—Another factor is increasingly important: the South's abundance of water. According to one expert, Maj. Gen. W. K. Wilson, Jr., of Washington, deputy chief of Army engineers, this gives the South a "present power advantage" over other regions, and "will become an asset of decisive importance" as the nation's water supply problem grows more serious and industry considers new plant sites.

Southern industrial development people say the things Dixie offers new industry far outweigh fears of race problems in management minds. There is sound reason to believe this where basic industries are involved. Only time will tell how the decisions will go for consumer products manufacturers.

One industrial development manager summed it all up in this way, making a very sharp point: "The race situation has hurt the South's industrial

expansion for many years—industrialization has been held back by 'too much demagoguery' and even if the region doesn't lose anything as a result of recent disturbances, we're kidding ourselves if we think we aren't paying a cost for segregation—it's an expensive luxury for the Southern economy."

II. Impact on Business

Promoters of the annual Arkansas Livestock Exposition and Rodeo lined up a better-than-usual fair for this year. They hoped to approach—and perhaps better—the record attendance of 225,000 set in 1951 for the six-day event in Little Rock.

The weather was ideal, but the week's turnout was a disappointing 163,000, or 5% less than attended a year ago.

The reason was something that nobody could have foreseen and that no steps could counteract: race troubles in Little Rock.

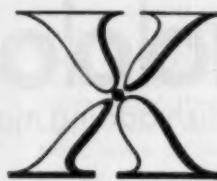
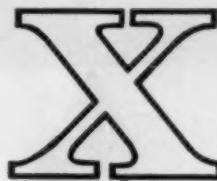
Clyde E. Byrd, secretary-treasurer of the exposition, blamed the anxiety of parents—too afraid of "possible troubles" to take their children to the fair, as usual, this year—for a large part of the decline. Besides, he said, school integration violence and the presence of federal troops in the city cut into the attendance from outside Little Rock.

• **Boycott**—There was another major reason for the slowdown at the turnstiles at fair entrances. Negroes normally swell the crowds there. This year, before the Central High School incidents, upwards of 35,000 Negroes had been expected to attend the 1957 fair. But, in the atmosphere of race tension, the Negroes could be counted in the hundreds.

There was no organized effort to keep Negroes from attending the exposition, but, according to Mrs. Daisy Bates, Arkansas state president of the National Assn. for the Advancement of Colored People, and Clarence A. Laws, of Dallas, Southwestern field representative of NAACP, word was passed around among Little Rock Negroes to avoid "unnecessary" economic associations with whites during the period of "un-easiness" over race relations.

The suggestion wasn't limited to the fair, but its impact was probably the most evident there. In other fields, downtown business suffered. Three department stores showed a decline in sales volume, particularly during the period just after the initial school integration disturbances. Other merchants were similarly affected.

In part, this was due to white customers as well as Negroes staying away from stores. Minor incidents on the streets, byproducts of the school integration emotionalism, kept many



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women shoppers at home. They didn't want to be embarrassed.

• **Economic Pressures**—In recent weeks, business in Little Rock has begun a return to normal patterns, but—as in Tuskegee and Montgomery, Ala., Orangeburg, S. C., and other places where race troubles have led to business boycotts—lingering after-effects are expected.

It is too easy to reach a conclusion, based on Little Rock experiences, that present racism in the South is hurting the region's business. It isn't, except in localized situations. In Atlanta, Birmingham, and other cities of the Deep South surveyed by **BUSINESS WEEK**, merchants and other businessmen reported that race tensions "have had an insignificant effect on the South's business life."

Similar findings are reported by the Southern Assn. of Science & Industry, Inc., and the Federal Reserve Bank in Atlanta. SASI noted in a statement two weeks ago that (1) fewer than 1% of the people of the South have been directly involved in race tension; and (2) economic effects have been felt so far by "only a few boycotted merchants or transit operators in isolated areas."

Federal Reserve officials reported business in the South "holding up at least as well as that in the rest of the country." Despite race troubles, department store sales throughout Dixie show increases over last year, about doubling the national average for gains. There are "definitely no signs of an economic slowdown in the South," Federal Reserve spokesmen said.

• **Exaggeration**—The lack of impact on general business surprises many in the South, white and Negro. Emory Jackson, editor of the Birmingham World, one of the South's leading Negro weekly newspapers, commented that after scattered incidents in connection with the opening of schools, "I was afraid there would be trouble and that the white people would, at least, take economic reprisals against Negroes." But, Jackson said, "nothing like that has happened outside Little Rock." The editor added:

• "Negroes still trade with white stores and white business concerns. Whites still continue to give their business to Negroes they've been dealing with."

• "There hasn't been any cutting off of credit to Negroes."

• "I haven't heard of any economic pressures being exerted in the South generally."

Negro bankers and businessmen contacted in every Southern state said much the same thing, even though assured of the protection of anonymity—they had no fear of reprisals. This is significant. Much is being said and written outside the South on the



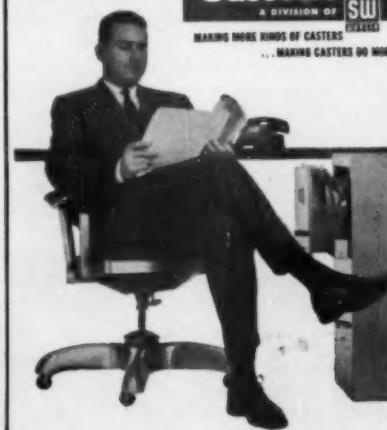
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"squeeze" being applied to Southern Negroes. Those working for interracial amity in Dixie say that it is "misinformation," perhaps a great exaggeration of "a few isolated incidents."

White businessmen and Chambers of Commerce throughout the urban South concur.

• **Middle Road**—It's true that Southern merchants feeling economic pressure are reluctant to talk about their difficulties. Many today depend heavily on both white and Negro trade and tread a narrow middle road, cautiously, afraid of running into even greater troubles. Nevertheless, there is no indication in their crowded stores and business volume figures that what they say about a lack of impact from race problems is, perhaps, wishful thinking.

This is somewhat less true in "black belt" rural areas. In most of these, tensions are greater. Because they are, the race impact on business is greater.

A year ago, Ford, Coca-Cola, Philip Morris, Falstaff Beer, and a number of major Southern companies were deeply involved in economic harassments (BW—Mar. 24 '56, p31). For the most part, their Southern operations are now back to normal. But, some continuing effects are still reported in Deep South county seats—strongholds of "wool hats," "red necks," or "crackers" most violently opposed to any changes in the South's traditional ways.

• **Trouble Brewers**—Whenever a resurgent (though still weak) Ku Klux Klan has "ridden" in the rural South, business has invariably dropped for a few days afterward. Both Negro and white customers have stayed away from county seat stores.

When White Citizens' Councils or other pro-segregation organizations have held rallies, Negro trading has slowed down perceptibly. Spontaneous and short-lived boycotts have resulted, one Negro leader commented, from a "feeling among Negroes that they oughtn't to do business with anybody working against us." White merchants and weekly newspapers have been boycotted by white pro-segregationists for refusing to support council activities. Negro stores have had milk, soft drinks, bread, and other deliveries shut off for a time by white distributors in rural areas when pro-Negro moves elsewhere in the South raised local tempers.

• **Urban Areas Hit**—Situations such as these create problems, but their impact on the Southern gross business volume is negligible.

The fact that the effects of racism on business are greater in rural than in urban areas should not be interpreted to mean that integration is any more acceptable in the cities. Economic facts of life—not sociological views—make the difference.

The South's Negroes today have more

dollars in their pockets than they have ever had before—and they are spenders. Consequently, there is a growing competition for Negro business throughout the urban South. In many downtown shopping areas today, Negro dollars mean the difference between operating at a profit or at a loss.

Here's why: In the South, as elsewhere, there is a trend of population and business from cities to suburbs. But, throughout Dixie, the movement is, so far, almost wholly white. L. D. Milton, president of Citizens Trust Co., in Atlanta, a leading Negro bank, said the Negro is "fenced in" throughout the South—there are no residential opportunities for him in outlying areas; these are being developed for white-only housing. So, Negroes are increasingly important as downtown transit riders and store customers while whites are tending more and more to live in suburbs and to do much of their buying in shopping centers or branch stores.

• **Play for Business**—A changed attitude toward Negro business in the South's downtown stores has resulted from this shift in white buying habits. In most ways—except in a dwindling number of high-priced, exclusive specialty shops—a customer is a customer now, regardless of color.

Negro shoppers no longer have to stand aside until all whites have been waited on. Frequently, there is no segregation in shoe department seating. The same store rules on trying on or returning merchandise now apply to white and Negro shoppers—whereas, not so long ago, Negroes were not allowed to try on hats or garments or to return anything taken from stores. And, importantly, former rules that made it more difficult for Negroes to get charge accounts have been eased.

The segregation required in most places by state or local laws—applying to drinking fountains, rest rooms, and luncheon facilities—still bar Negroes from full equality as downtown shoppers. But the growing importance of the Negro dollars has toppled other race bias barriers so that, now, there is no appreciable difference between North and South when Negroes stand at the store counters in most Southern cities.

In Atlanta a year or so ago, a new store opened with sales policies that favored white customers over Negroes. There was no organized boycott but, Negro leaders in the city explain, "our people naturally traded in the stores where they were made to feel comfortable and welcome." Other factors were also involved, but the anti-Negro policy is generally considered a big reason the store shut its doors after one year.

• **Checkrein**—In other areas of business, much the same thing is true. The Negroes' improved economic status has

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increased their importance to business to such an extent that it is a checkrein on emotionalism over social changes.

Harold Flemming, director of the Southern Regional Council, in Atlanta, said that a "substantial, enlightened business counteraction" against "extremists on both sides" has helped hold down Southern race problems.

However, nobody discounts the possibility that trouble might still come.

Charleston businessmen reported that race troubles elsewhere haven't had any effect on local business and industry. But, they added, the local economy would probably feel the impact quickly if any effort is made to force integration there. And, under their surface optimism, Georgia and Alabama businessmen and civic leaders feel much the same way.

They put it this way: Little incidents can be explosive now. Poor judgment or mishandling of some situation could lead to trouble anywhere, any time. The tragedy now is, they say, that other Little Rocks may be in the making; the South is seething and there are Fau-buses aplenty to keep it so.

• **Simmering Pot**—There are other business worries:

• Most Southern employers have Negroes as well as white workers on their payrolls, with Negroes in subordinate jobs. Now, with school integration a hot-tempered issue, the employers have a growing fear of using white men and Negroes where they must work together so closely that some slight friction might erupt into violence. So, Negroes are losing jobs—not in any spirit of a "crackdown" but because employers want to play safe.

Murray W. Miller, head of the Southern Conference of Teamsters, protested recently that Negro members are "having a hard time getting jobs on loading docks and in warehouses." It's a common complaint.

• Many areas of the Deep South depend on tourist dollars to bulwark their local economy. Several weeks ago, Sidney T. Roebuck, president of the Mississippi Automobile Club, warned a meeting of the Southeastern Conference of the American Automobile Assn. that "the tourist business of the South is in jeopardy because of the unfavorable publicity in connection with race problems." He urged increased Southern advertising to counteract "false impressions."

• There is a steady movement of Negroes out of the South, largely as a result of basic changes under way in the region's economy—from small farms to mechanized farms, from a predominantly cotton and tobacco economy to one in which industry is a steadily growing factor. There aren't enough unskilled jobs in the South to absorb the displaced rural Negro workers, and

thousands are moving to St. Louis and further north.

In any crisis, there is hot-headed talk in the South about sending Negroes up North, en masse. But, the fact is that Southern businessmen don't want to lose today's plentiful Negro manpower (a factor for minimum-cost labor) and potential purchasing power.

• There are fears over what the rising rumble in the South will mean in the next Congress. Many businessmen are already taking for granted that federal aid funds will be tied to integration and equal job opportunities. And, they say, that will inevitably mean that highway construction and other federal-aid projects will be slowed down considerably, in a way certain to have spreading business repercussions.

• **Economic Threat**—Concern over these and the more basic problems arising out of the Supreme Court school integration decisions and repercussions in Little Rock and elsewhere has made businessmen apprehensive—even though most haven't, yet, felt any economic squeeze from race pressures.

As a result, businessmen are being urged to admit that an economic threat exists, and to face up to it. They are being called on to leave sociological aspects of the integration fight to sociologists, and to devote "dispassionate thinking" to a situation "which so far has been pretty well left up to the extremists of both sides."

There may be no solution to the race problem in the South, but, they are being told, quietly, there "has to be a best way" out of "a crisis such as the South has not met in its lifetime."

The question they are being asked is: Where do we go from here?

III. What's Ahead

Negro and white workers are employed side by side in Birmingham and Montgomery (Ala.) packinghouses and food processing plants, as well as in others in the Deep South. Their jobs and pay are equal. They belong to integrated local unions in which Negroes hold many elective offices.

Ralph Helstein, president of the United Packinghouse Workers (AFL-CIO), told a Tennessee conference on integration recently that, despite race tensions of the past year or so, "there has been a minimum of trouble" in these places. There have been only "a few incidents that could have happened in Chicago or anywhere."

• **Changing Pattern**—What is true in the packinghouses is true in varying degrees in other industries. The Negro is making progress as an industrial worker. In "fringe" areas of the South, he is getting better-rated jobs and, in scattered instances, promotion to supervisory jobs over white workers. Else-

where, most jobs open to the Negro are still secondary and low-paying—but more and more opportunities are opening up in industry in its steady expansion.

To Helstein, there are "some signs of optimism" in this progress now being made toward closing "old economic and social gaps" between Negroes and whites in the Deep South. And he added, "the continuing, steady industrialization of the South will itself result in considerable progress for the Negro."

• **Negroes' Role**—Voices are being raised throughout the South in support of this viewpoint. They indicate that amid Dixie's "massive resistance" to school integration there is an awareness that the Negroes' role in the South is changing—and that Southern attitudes must change, too.

There are a number of reasons:

• With more dollars in the Negroes' pockets, they are becoming, more and more, a market that can't be ignored. The increased buying power is a subtle force for changes in the way Negroes are accepted. In the heart of segregationist South Carolina, a Charleston editor commented that the South "needs . . . the economic power of the Negro—to buy goods that white people offer for sale [and for] taxes to help support government . . . The new Negro can be fitted into the Southern pattern as well as the old Negro, on terms agreeable to all."

• With the Negroes' potential voting strength, they are still more in a position to achieve substantial new gains. Significantly, the Negro has won the greatest concessions in those parts of the South where Negro voting (except in white Democratic primaries) has been commonplace. It's probable that in so-called "wool hat" areas, Negro voting will not be accepted without strong resistance. But, most Southern politicians now accept the fact that the Negroes are going to vote in growing numbers—and, as realists, are now considering ways of capturing the new Negro vote without jeopardizing past segregationist support.

• There is a growing recognition that the South "needs the manpower of Negro men and women," to backstop its reservoir of white labor in a continuing bid for new industry. Not long ago, the Southern Regional Council had a survey made of manpower in Dixie. The results, still unreleased, are reported to show that the region's "labor base"—while large in many areas—is not nearly so boundless as many Southern industrial development people believe. In places, the South may soon lose one of its lures to industry: ample manpower. The answer, the Southern Regional Council says, is the Negro. And others are apparently coming to this same conclusion. **END**

RESEARCH

Contraceptive Pills on Market

● But only by doctor's prescription and at relatively high cost. The search for a really cheap, safe, foolproof oral contraceptive is continuing.

● The new pills are synthetic sex hormones that have equal value in ending involuntary childlessness.

● Tests so far show no ill effects, but the pills are still a long way from over-the-counter sale.

Medical research laboratories are fast closing in on one of their prime objectives: a cheap, safe, and reliable contraceptive in pill form. U.S. drug companies joined the search intensively only about three years ago, and already two of them have pills on the market—by prescription only.

Paradoxical as it may seem to the average person, the same contraceptive pills are regarded as equally valuable as a remedy for involuntary childlessness. They are being prescribed for fertility-menstrual troubles because they seem to have far fewer side reactions than other synthetic hormones that are in use. After using them for a prescribed time, women who have given up hope of children have reportedly been able to conceive.

Obviously, such pills could have a tremendous market, if they prove themselves in extensive field tests—and if they can be made cheaply enough. As contraceptives, they could cut the runaway birth rate in impoverished, overpopulated areas of the world; as remedies for infertility, they would find eager buyers, too—in the U.S. alone, more than 600,000 couples are reported involuntarily childless.

● **On the Market**—Today, physicians have a choice of two steroid hormones to prescribe: Enovid, made by G. D. Searle & Co. of Chicago, and Norluton, made by Parke, Davis & Co. of Detroit. E. R. Squibb & Sons, Inc., a division of Olin Mathieson Chemical Corp., and Upjohn Co. of Kalamazoo, Mich., are reported to be in the final stages of research and development of similar compounds.

While Enovid and Norluton are newly available by prescription, neither they nor the other compounds yet to be introduced will be sold over the counter for a long time, researchers warn.

● **Still Costly**—Moreover, the search for an inexpensive oral contraceptive is far from over. The steroid hormones are expensive to manufacture. They are

invariably big, complicated organic molecules.

Besides, researchers won't be satisfied until long and carefully controlled tests on large numbers of women prove every feature of the drugs.

Early field tests reveal that Enovid and Norluton have, according to one medical report, "enabled a large number of women to conceive, where all other surgical and medical treatment had failed," and have prevented pregnancy, in small control groups of women who took a pill a day, for up to six months.

One mass test in Puerto Rico, a doctor reports, shows "100% protection against pregnancy in women given 10-milligram doses of either compound 20 days every month."

No unfavorable reaction or detectable effect on the long-term fertility of these volunteers has been found, or any immediate effect on their natural production of hormones. Yet, in the eyes of medical researchers, their effect on the general hormonal balance of women who take them for a long time is still to be proven.

● **The Theory**—Most research on contraception was based, until recent years, on chemical or mechanical means of preventing fertilization of the human egg cell. The first reasoning that sex hormones might be the key—both to birth control and to problems of infertility—is generally credited to Dr. Gregory Pincus, now of the Worcester (Mass.) Foundation for Experimental Biology.

Pincus started his laboratory career at Harvard, Clark University, Boston University, and Tufts College. His reasoning was that birth control might start by using a sex steroid to prevent ovulation—the production of egg cells—rather than trying to balk the fertilization of the egg cells.

● **Specifications**—All researchers in the field agreed that success in producing an oral contraceptive depended on making it safe, reasonably cheap, foolproof

even in the possession of the illiterate, and only temporary in its effect.

A material that meets these very specifications, Pincus remembered, is produced by every normal woman during pregnancy. It's a hormone called progesterone. After fertilization of an egg takes place, it is released to keep the ovaries from releasing any more eggs during the pregnancy.

As Pincus and other researchers well knew, progesterone is nontoxic, safe to administer as a drug. Doctors had in fact been using it for decades to prevent threatened miscarriage and natural abortion.

The only problem in putting it to a new use in preventing ovulation in non-pregnant women was that it has to be injected in extremely heavy doses for maximum effectiveness.

● **Synthetic Substitute**—In 1954, partly at Pincus' request and partly because of their own growing interest in worldwide studies of oral contraception, several U.S. drug houses started work on synthetic sex hormones. They were looking for a synthetic substitute that would have the same effect as progesterone, without requiring injection or heavy dosage by mouth.

After long trial and error, they were able to synthesize test quantities of about 50 steroids that differed from progesterone only in small chemical detail. Of these, 15 were found to have the ability to repress ovulation, and two proved to be as powerful as the natural hormone—progesterone—when taken orally in only 10% as much dosage.

● **Product Prospects**—For reasons of present cost, if nothing else, widespread general use of the new oral contraceptives, especially in such countries as India and Japan, seems still to be remote. But success in developing such synthetic hormones as Enovid and Norluton is sure to help in a wider field of research.

Research on the problems of old age (BW—May 5 '56, p110), for example, includes a study of hormone action. The search for a cure for arthritis (BW—Feb. 25 '56, p86) continues to center around synthetic hormones, such as cortisone. In both cancer and heart research, hormones and hormone deficiencies are being studied.

The chief problem in any hormone research, however, is that so little is known about how the body produces hormones and what causes the body to change its output of them. Discovery of a reliable oral contraceptive won't give the complete answer, but it may help to fill one gap in knowledge. **END**

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For Scrap, a More Sober Future

● Steel scrap's gyrations in recent years leave it right now in depressed state of low prices, slim volume.

● Its 1958 horoscope: a market still held in check.

● And for longer term, many factors—involving steel capacity, technology, labor—promise firmer control over scrap by steelmen, and far less room for bounce.

Steel scrap is currently bumping along on the downside of its roller-coaster market, with sales volume slim and prices low—the composite price slid this week to about \$35 a ton, against \$56 a year ago and \$65 last December.

Most responsible right now for scrap's depressed state is the fact that steelmaking is running at only a little over 80% of capacity—against close-to-capacity operation a year ago—while steel's inventories both of scrap and semifinished product are relatively high.

If you peer around the corner into 1958, the first thing to strike your eye is the strong likelihood that steel operations won't come close to straining steel capacity. That means, for 1958 at least, a scrap market more subdued and much more closely regulated than its volatile past would indicate.

That prospect for scrap doesn't end with 1958, either. There's a good deal more than a transitory decline in business to back up the belief that the iron and steel scrap trade faces a distinctly less buoyant future.

• **Under Control**—Here's why the scrap picture is changing.

For several years, steelmakers have been gnashing their teeth at the price ups and downs of purchased scrap, and the deterioration of quality in periods of heavy demand. Scrap started off 1955 at a price level lower even than the one it's now hitting—a composite figure of \$32.63 a ton. A year later it had climbed to about \$53 a ton. Through 1956 it gyrated madly between a low of \$43.83 in early July and a high of \$65.17 in mid-December, with several intermediate bumps and jumps along the way.

This price volatility grows out of the fast-moving, triangular battle that's constantly fought out among the scrap sellers, the brokers and scrap dealers, and the steelmakers (BW—May 12 '56, p 43)—a battle in which a sudden move can send prices scurrying up or down in a chain reaction. Last year, with steel operations bumping against capacity, steelmen were trying every way they

could, without much success, to keep scrap prices from bursting out through the ceiling.

Steelmen also consider that they were sandbagged by the scrap industry's insistence on unfettered exports—which hit 6.2-million tons for scrap iron and steel last year, to 1.6-million in 1954.

But now a number of factors—an unfinished decade of expansion, a blossoming of technology, a major shift in the labor-management equation—have combined to give steelmakers much more control over their scrap supplies. In view of recent experience, it's a pretty safe bet that steel won't hesitate to exercise that regained control.

• **Greater Self-Sufficiency**—Quite a few steelmen today agree that it should be possible, for almost any integrated mill that really tries, to become self-sufficient on scrap up to an 85% operating rate—perhaps somewhat beyond that. At least one major producer has been working hard to achieve that, and isn't far from it now.

To the extent that becomes true, purchased scrap would supply a smaller share of steel's total scrap needs than it has historically (purchased scrap's share has run something less than one-half of steel's needs, around 47%, with "home scrap" making up the balance). That would give purchased scrap far less chance to dominate the market, and to shoot up to a high price level in tight periods.

It wouldn't turn out that way, of course, if steel had a succession of near-capacity years. But steel is now rapidly returning to the historic position it occupied up to the last couple of decades, of almost always having significant excess capacity on hand. (Through the prosperous 1920s, for example, steel operations never exceeded 85% of capacity, except for a climb to 88.7% in 1929.)

Steel's return to such a capacity cushion will be a lot more noticeable two months from now, when the industry announces what it has achieved in construction in 1957. The total will add up to at least 5-million tons of

new capacity. The situation will be even clearer in 15 months, when steel completes its three-year, 15-million-ton expansion, on which it's now in mid-passage.

That doesn't mean the industry is going to be uneconomically overbuilt for the rest of its days. But it does mean that an 85% operating rate will be a good deal closer to the norm than it has been for years. And a mill that's self-sufficient on scrap at such a rate isn't going to be buying enough to support the high scrap price levels of some recent years.

• **Technological Push**—Beyond that basic reason for a long-term downturn in scrap, technology is likely to add a further push. There are three ways, at least, in which steelmakers can manufacture synthetic scrap. Two of them—using Bessemer capacity to produce partially reduced ingots (by no means new), and producing synthetic scrap in open-hearth furnaces—were practiced this past summer by at least one major steelmaker.

This producer claims that the open-hearth method gave him cleaner scrap—at lower cost—than the No. 1 heavy melting grade which is the finest and most expensive grade of purchased scrap.

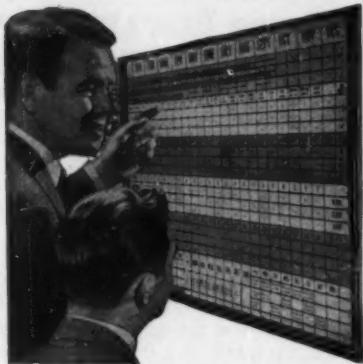
Basically, of course, a steelman isn't going to use a steelmaking furnace to produce synthetic scrap to stockpile against a day he may need it. But if he finds scrap prices higher than his own costs, and steel demand lower than his capacity, he would be able to turn his back on the purchased scrap market.

Direct reduction of iron ore is a third method of producing synthetic scrap. When it arrives, its scrap-making economics will be one of its attractions.

The blossoming of the oxygen converter—which uses less scrap than an open-hearth or electric furnace ordinarily does—will have a real, if subtle, impact on the purchased scrap-home scrap balance. A steelmaker who is long on iron-smelting capacity to support an oxygen converter shop at a very low scrap rate will be able to support a much larger percentage of total steelmaking capacity on home scrap.

• **More Hot Iron**—Another road to a decline in the need for purchased scrap is just opening. Technology has just started to attack the problem of using considerably higher percentages of hot iron in open-hearth furnaces than the 70% top that's now economical. Early research findings indicate that it may become quite possible to charge as much as 80% or 85% hot iron eco-

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nominally. To the extent that it does, it will give steelmen another weapon against high scrap prices.

In recent years, steel simply didn't have the iron-smelting capacity to use any such hot metal ratio. But steelmakers have been beefing up both the iron content and quality of their blast furnace raw materials, and they've been refining blast furnace practice. So even though the ratio of iron capacity to steel capacity has gone off, they are better able to supply hot iron.

This year the industry has held blast furnace utilization well above 90%—far higher than normal at current operating rates—and through August, scrap consumption per ingot ton was far below the average of the past eight years. And the upgrading of blast furnace productiveness is far from finished.

It's probably a good guess that steel has more still to gain in improving the utilization of blast furnace capacity than it has achieved so far—and its achievements have been considerable. So steel won't be short on iron capacity.

- **SUB's Impact**—Still another factor likely to squeeze the scrap trade in the future is the fact that practically the entire steel industry now operates under supplementary unemployment benefits contracts. That means, of course, that a steelmaker will try to keep his plant operating at stable levels.

It's hard to pin down the impact of so monolithic a factor as SUB on such a volatile market as scrap's. But it's plain that steelmakers will be slower to take their own facilities out of production even in favor of lower-cost purchased scrap. Because of the added costs of SUB, implicit and implied, scrap will have to sag still lower in price than it would have previously—by some real, if hard-to-pin-down amount—before it will make sense for a steelmaker to close down his own investment and depend on an outside supplier.

- **Still Some Fight Left**—Naturally, none of these factors—steel's capacity cushion, technological change, the SUB incentive—nor any combination of them, will put the steel scrap trade out of business. Even if it were possible for steel to be self-sufficient on scrap at a 100% operating rate, it would be uneconomic for the industry to try to reach such a goal.

And, of course, there's the steel scrap trade itself—a group that's hardly likely to sit by and wait for its own funeral. Such a hard-hitting group will take every possible step to see that steel doesn't learn to get along without it and that scrap continues its independent existence—even if it has to be at a lower level of price and volume. **END**

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Taking a day from the office, business and professional men visit their sons, appraise their school on Father's Day.

One lovely autumn afternoon this month 199 usually busy men arrived in Lakeville, Conn., a New England village served by neither rail, air, nor bus. Included in their number were clergymen, doctors, academicians, theatrical producers, ranchers, editors, architects, lawyers, engineers, and scientists. Most of them, however, were busi-

ness executives. Yet not a briefcase was in evidence.

To an expert on the gatherings and tribal rites of the American male, this unbusiness-like gathering on the long green lawns amidst the neo-Georgian school buildings might suggest that a class reunion was getting under way. But closer observation would shake that hypothesis.

• **Happy Fathers**—The group encompassed too wide an age spread. There were no sounds of hilarity nor sights of inebriation. And the men in the group looked too much of a type, lacking the heterogeneity of an alumni meeting with its extremes of oddballs. The fact



FATHER'S DAY at Hotchkiss finds Walter Slocum, Daystrom vice-president, chatting with his son, William, on soccer field.



DINNER, George Magoffin Humphrey 2nd, and his father, Gilbert, V.-P. of M. A. Hanna Co., discuss school affairs.

AFTER CLASS, Woods McCahill, GE lawyer quizzes master.



Businessman—His Son's Education

was that these men—a little strained, a little embarrassed, but undeniably happy—were giving all their mind and heart to being parents. They were visiting their 14-18-year-old sons on Father's Day at the Hotchkiss School.

They had come from all over the country to see their boys: to judge their health and well-being, to taste, vicariously, the life they lived away from home, to meet their masters, and appraise their school.

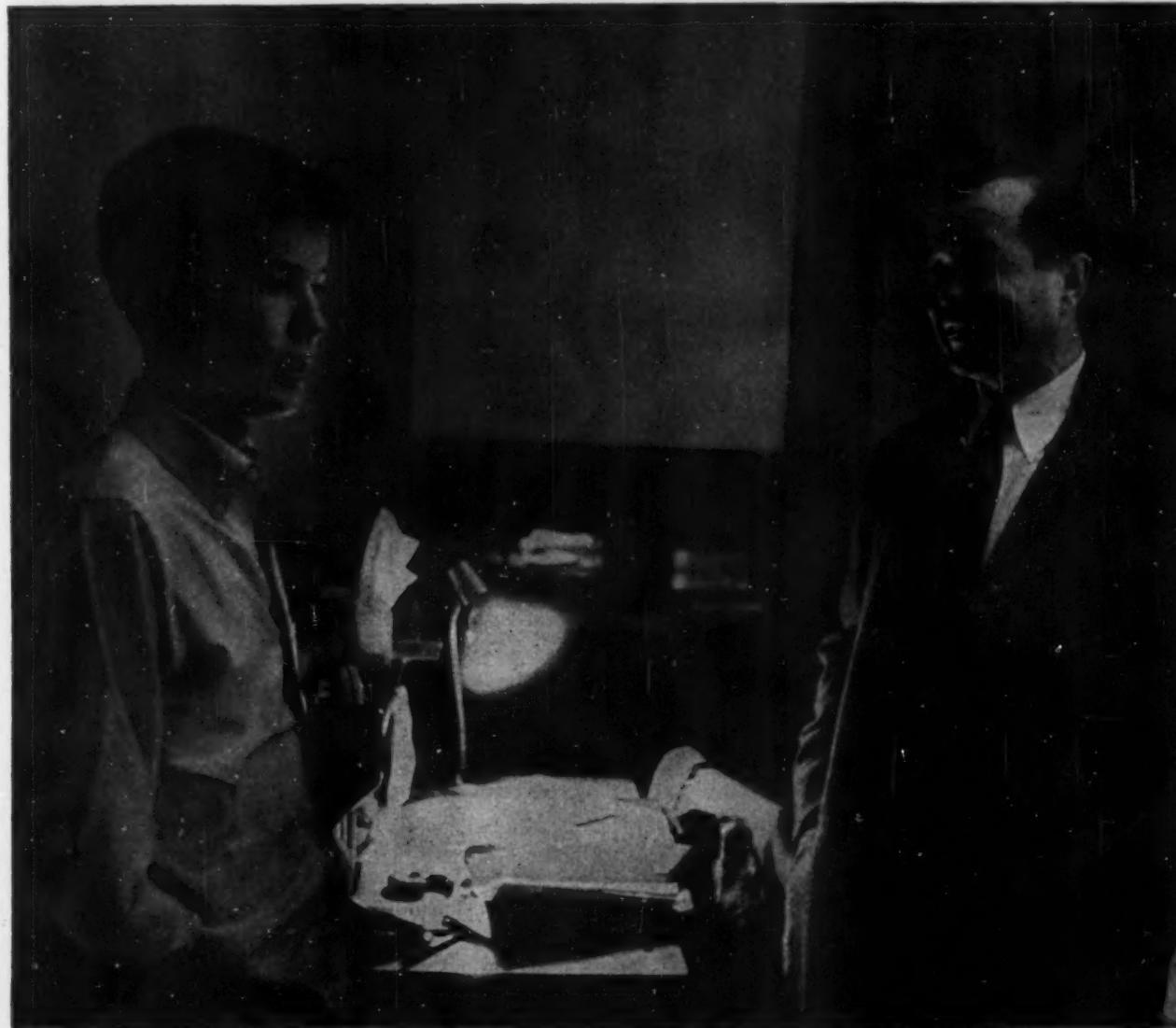
All through Friday afternoon, the fathers "registered in." Those whose sons were not on hand to meet them carefully followed directions to the soccer or football field, tennis courts,

gym, library, or dormitory where their boys had left word—they were to be found.

- **Mutual Pride**—The greetings were as various as American family life. "Hey, Pa," one of the boys yelled exultantly, and came hurtling across the quadrangle and into the outstretched arms of a beaming father. "How are you, sir?" was another's formal salutation as he put out a hand to shake with all the stiffness and shyness of adolescence. And over-all there was a deep and innocent air of pride as the boys looked straight or obliquely at their fathers and introduced them to their classmates, and the fathers looked at the boys.

As evening fell, football and soccer practice over, a boy would help his father locate his berth for the night—at a master's home, in the school infirmary, in perhaps a cot-crammed vacant dormitory room. Eventually all gathered for supper in the big oak-paneled dining room. There, at tables of 11, each one headed by a master, 362 boys, the visiting fathers, and a teaching staff of 41, scraped, hustled, chattered, then fell silent and bowed their heads in prayer as the headmaster, Rev. Thomas H. Chappell, pronounced grace. The school was assembled.

- **Table Talk**—"Well, son, I just don't



KEN, Jr. and Union Carbide & Carbon V.P. Kenneth M. Hannan have a lot to talk about in the privacy of the boy's room.



SITTING IN English IV, engineer M. H. Sommer hears Wordsworth poem analyzed with his son Frank.



COFFEE for fathers, Robert W. Lear, Wilson S. Elmore, and W. Scott Cluett, at a reception at headmaster's house.



AT FOOTBALL GAME, Newton S. Calhoun, banker, is joined by son John as John's twin, David, performs on field.

... any New England prep school bears the indelible stamp of its headmaster. . . . Hotchkiss is a school in transition . . .

STORY starts on p. 116

understand why you're always complaining about the food here," was a standard paternal remark as fathers ate with at least the appearance of gusto. And the filial reply was standard, too. "Aw, Dad, don't you understand, we never get meals like this except when there are visitors." The Yale football schedule (Hotchkiss feeds most of its graduates to Yale and many Hotchkiss fathers are Yale men), the school play, the progress of the new dormitory under construction, a new rumor that seniors were to be allowed smoking privileges (baseless), plans for the Christmas holiday—this was the stuff of conversation as personal matters were avoided in order to keep the whole table in the talk. Table manners were almost absurdly impeccable, almost every sentence from a young voice ended with "sir," and some of the fathers even found themselves falling into the old habit.

Supper over, the crowd drifted down the long corridor at one end of which is the dining room, at the other the headmaster's home to which the fathers had been invited for coffee. Voices were louder now as some of the boys whooped it up after too-long restraint. And fathers caught the spirit. "Why, Charlie," shouted a chemical company executive catching sight of his stockbroker, "I never knew your boy was here."

Outside the passage to the headmaster's house, the generations separated, the fathers, straightening a necktie or smoothing down thinning, hairlock, braced themselves almost visibly for a return to the adult world.

• **Headmaster**—Thomas Huntington Chappell, B.A., B.D., D. Litt., is a Hotchkiss boy, a Yale man, and an Episcopal bishop. He came from active preaching to the headmastership in 1955, succeeding George Van Santvoord (the Duke) who had been one of a small band of giants among 20th Century American schoolmasters. Any New England prep school bears the indelible stamp of its headmaster. So now, after Van Santvoord's 29-year tenure and strong personality, Hotchkiss is a school in transition. Slowly, it is beginning to feel the Chappell influence. But the old, spacious headmaster's house with its vast and elegant library overlooking the lake is surely his and his gracious wife's. Immediately, being greeted by them both, the fathers feel at ease.

• **Amiable Mingling**—The masters are

there, and the fathers mingle, staring at the nametags on all the lapels. One goes looking for Mr. Stone, Johnny's math teacher, or Mr. Torrey, who has him for English, or Mr. Beaumont, who teaches him French. "I'm Johnny's father," he says fingering his lapel tag. But whether it's Mr. Stone or Mr. Torrey or Mr. Beaumont, the response this evening is at the level of: "I'm pleased to meet you, Johnny's a fine boy." This is not the occasion to go into Johnny's difficulties or shortcomings, nor seek a measured opinion on why Johnny feels he can't keep up with his class. That will all come tomorrow in the privacy of an empty classroom or quiet office when father and master are alone.

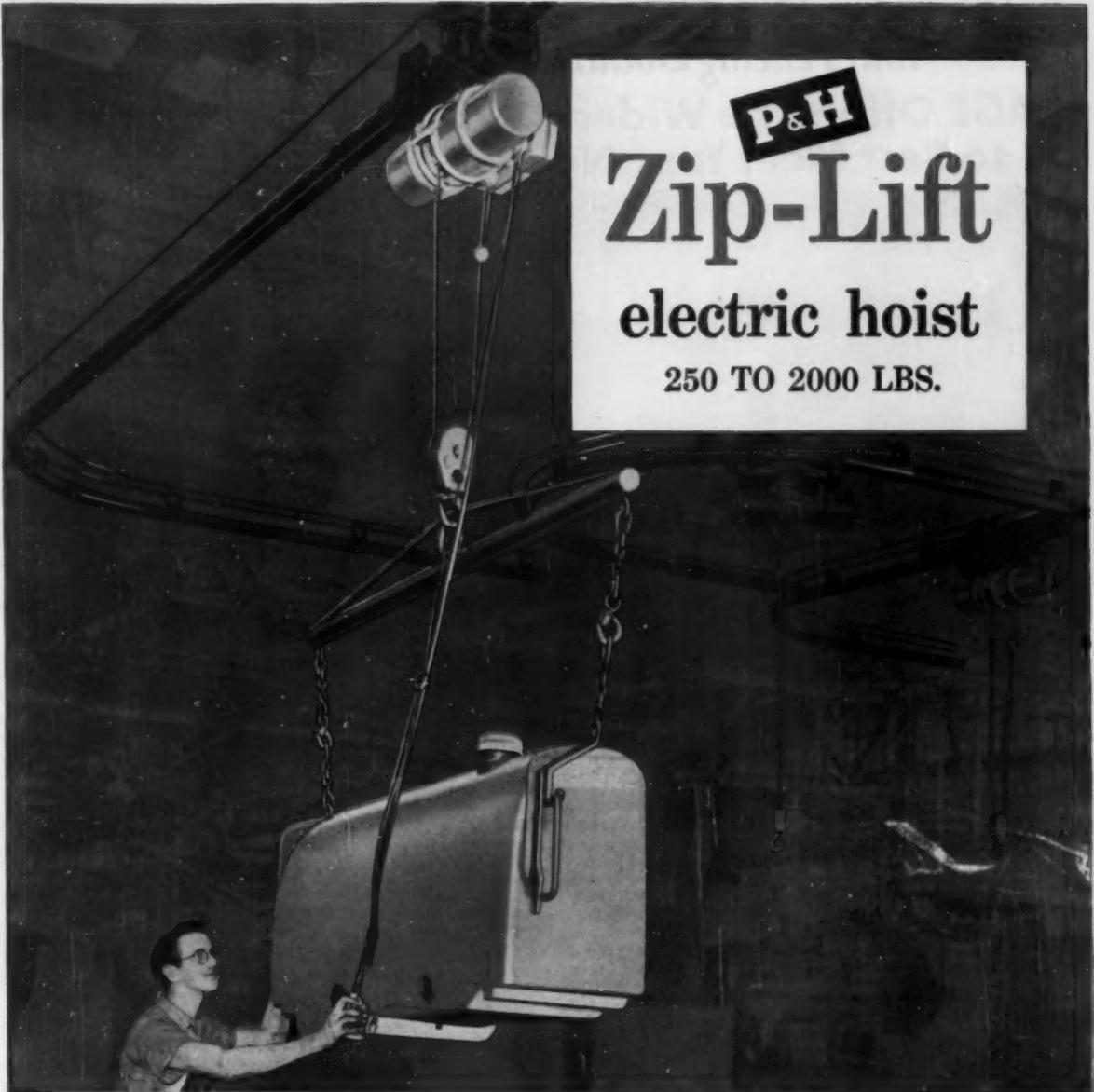
• **Question Period**—The coffee hour over, headmaster, teachers, and fathers make for the school auditorium where the schedule calls for a Q. and A. meeting. Most of the questions concern college entrance, the Hotchkiss marking system, Asiatic flu, the school's social and athletic program. Chappell has with him on the platform a panel of three school officials and two student leaders. The tone is kept light and bantering, but questioners are intent.

• **Lights Out**—The meeting breaks up. Separately, the visitors head toward one or another dormitory. Fathers of first-year boys (Juniors) have to hurry. Lights go out in Buehler Hall—their dorm—at 9:30. Second-year boys (Lower Middlers) have lights until 10; third-year boys (Upper Middlers) until 10:30; Seniors turn their own lights out.

Those who are sharing their son's room for the night have an amicable argument over who will sleep on the folding cot, but they usually let themselves be persuaded to take the bed.

A few of the men decide to shave, to save a few minutes in the morning. Two stand side-by-side at the long mirror in one of the shower rooms. One complains about the dim electric bulbs—but quietly. "I suppose this Spartan life is good for a kid," mutters the other, spraying a foamy lather on his face. "Silly false economy," the first replies, daubing at a fresh cut in his chin.

The corridor master comes in with flashlights. "Lights are out, gentlemen," he says, "you may need these to get back to your room." He has a drawerful of flashlights, he explains. He takes them away from the boys who use them for late studying in bed after lights-out. He stands chatting for a while, invites the fathers to come into



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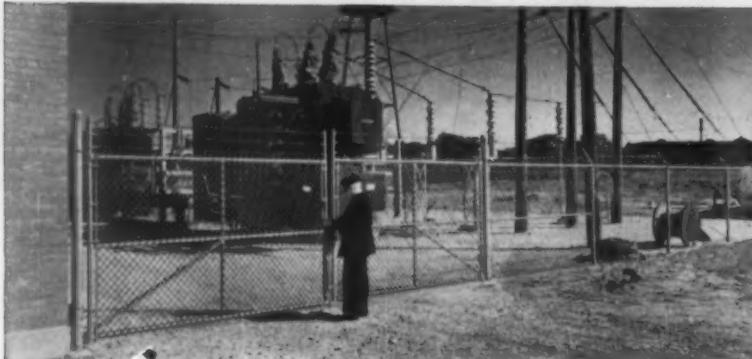
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STORY starts on p. 116

his quarters at the end of the hall for a goodnight cigarette. One accepts. And again the talk is about Johnny.

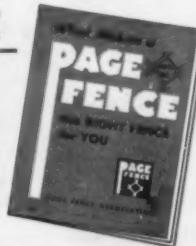
• **Frank Exchange**—“How's he shaping up?” the father asks with a man-to-man air, and in response gets more than he expected. For this is no fatuous exchange. The corridor master knows the boy well, he sees him making his way among his peers. His eye is sharp for faults and weaknesses. “Does he sulk if he doesn't get his own way at home, too?” he inquires. “I wouldn't say he is the most popular boy on the floor,” he says later. There is a direct, no-nonsense quality about the corridor masters, and their standards are very high. It's a rare father who doesn't get some astringent comments on his son from the boy's corridor master. He'll hear praise, too—if it's merited. Lying abed and thinking, at least one father sees his boy in a new perspective.

• **Early Morning Bedlam**—The rising bell is at 7, and it's bedlam in the dormitories as 362 boys splash water on their faces, squeeze toothpaste, smooth down their crew cut hair, pull on their chino pants, button down the collar of their oxford shirts, knot knitted ties, squeeze their wool-soled feet into moccasins or loafers, and grab tweed jackets from their hangers. The school has no uniform, but Hotchkiss dress is Ivy League and except for an occasional checkered bow tie or red cotton breast-pocket handkerchief, most boys conform. The fathers are jostled in the rush. At the last second, a boy grabs both his books and his father and joins the running swarm to breakfast, eaten at 7:25.

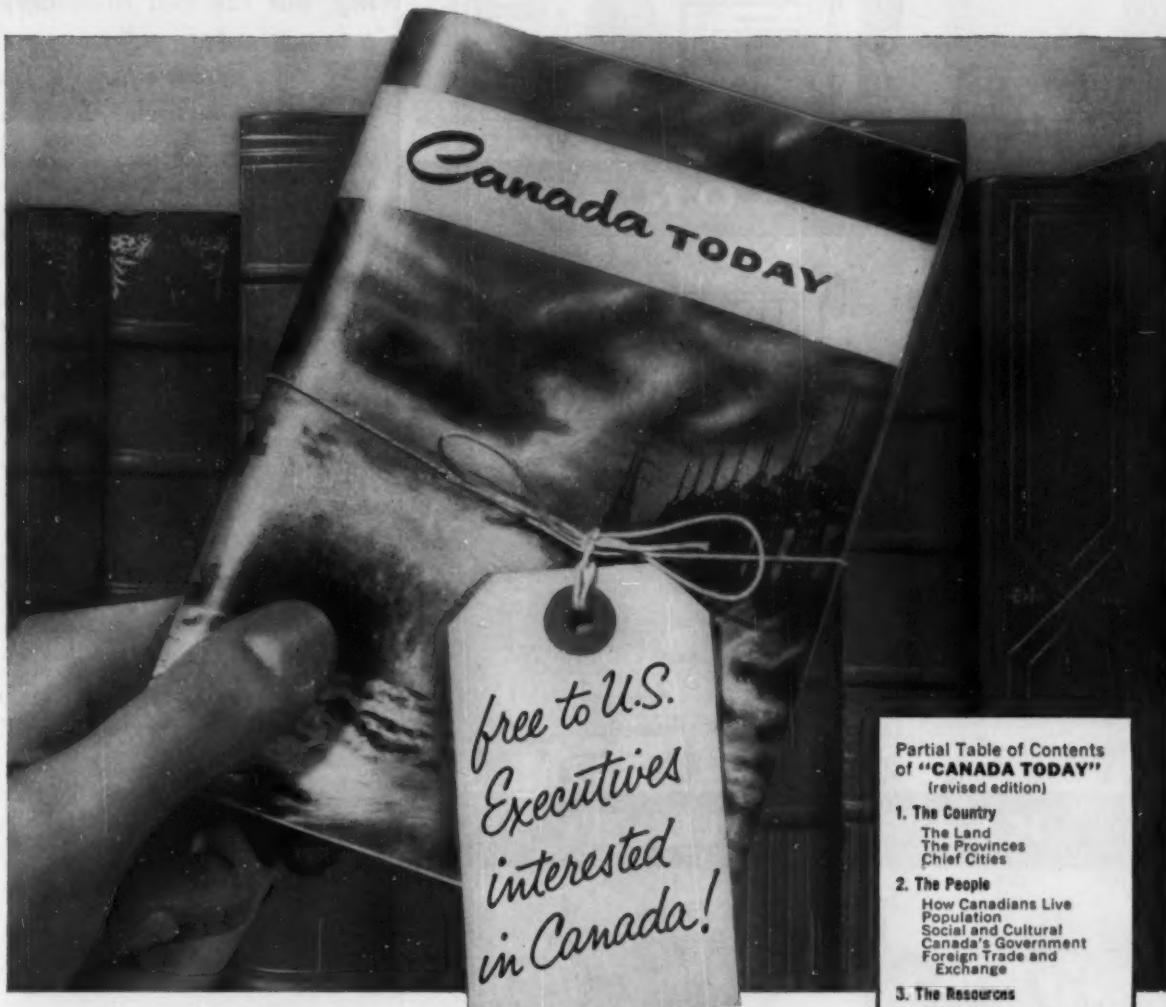
Most of the fathers, used to a little more leisurely approach to the day, or accustomed to the privacy a newspaper propped up at the breakfast table affords, sit slack and glassy-eyed in the dining room. But the boys hum and crackle with energy, shoveling in huge amounts of scrambled eggs and toast and gulping gallons of milk. It is an hour when the years that lie between a father and son seem to make, not only another generation, but another species.

Breakfast over, all move toward the chapel. Some few boys, having forgotten a notebook or a French verb list, fly back to the dorms to retrieve them. The fathers understand they are to sit in the pews along the wall as each boy goes to his assigned place in chapel.

• **Interlude of Serenity**—Books and papers left on window ledges, the boys go into chapel. Behind them in the organ loft, the great organ plays, and they stride to their places. This is a



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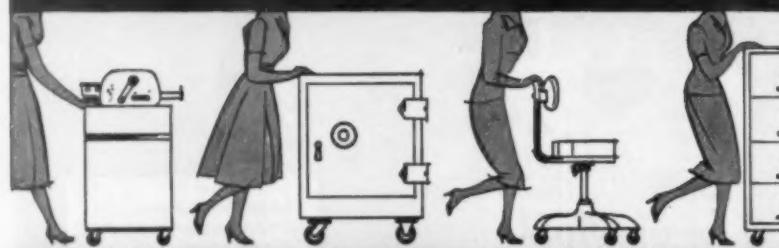
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" . . . the thin gloss of civilization seems to be cracking, but the riot lasts only a few minutes . . . "

STORY starts on p. 116

moment of almost perfect discipline; there is no jostling, no scraping, no whispered word. And it is a moment of almost perfect beauty. One by one, the young heads are bowed as each makes his private prayer and the morning sun lights the church with gold as the music soars (cover).

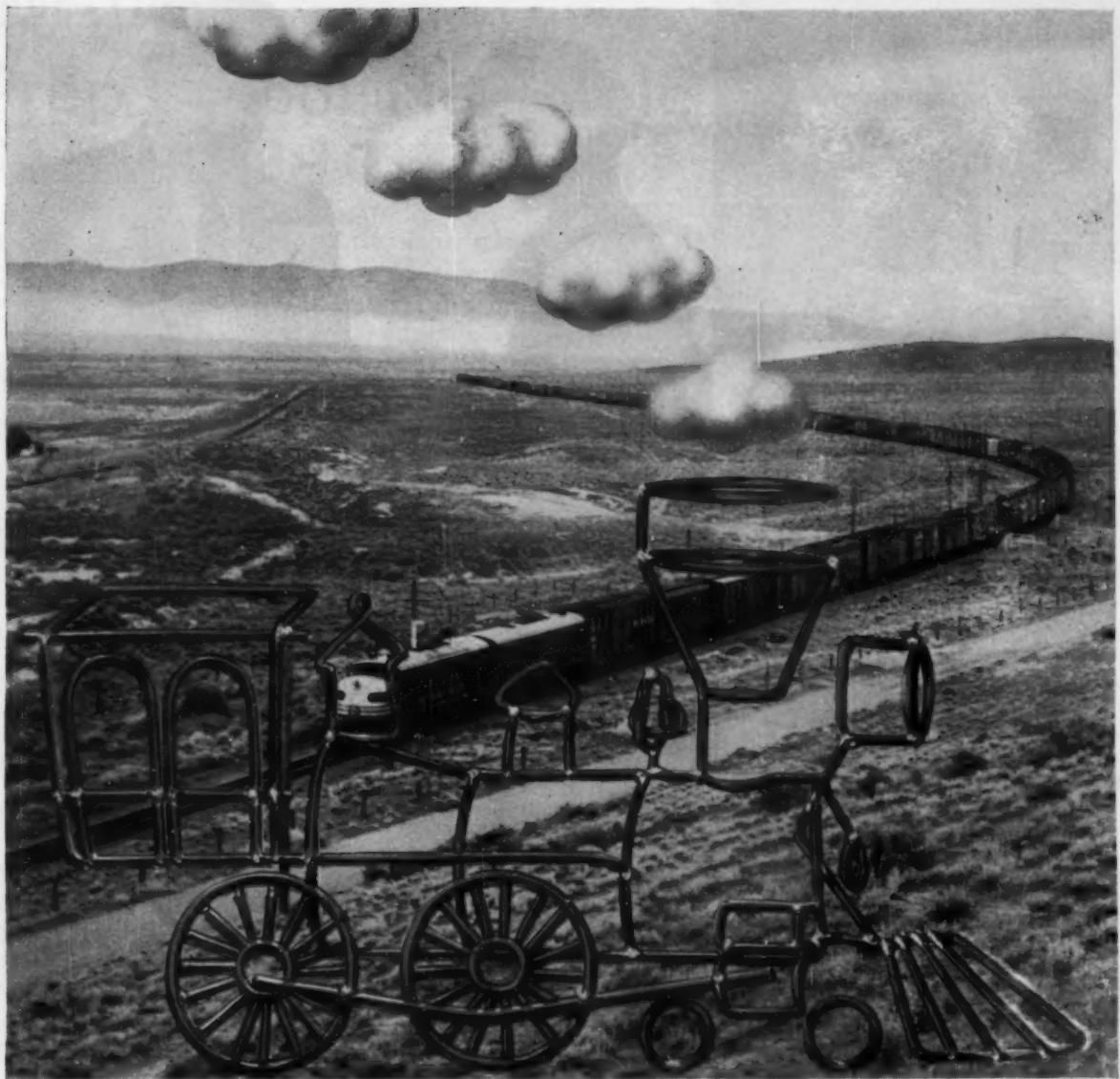
The moment ends as the organ strikes its final chord, and all come to their feet. The headmaster says a short prayer, then all together, the Lord's Prayer aloud. The organ plays, the young robust voices boom a hymn with an exultation that is only partly of the spirit. When they are seated again, one of the masters reads a chapter from the Bible. The headmaster says a simple prayer for the day. And as the final chorused Amen echoes through the nave, Mr. Chappell, the Bible-reading master at his side, marches down the aisle. Behind them, row by row, the tall seniors from the first pews, then the Upper Mids, the Lower Mids, and last the Juniors, walk sedately to the door.

In the hall, the interlude of serenity over, the place explodes. More than 300 boys are being boys—yacking, scuffling, running in all directions; the din is ear-splitting. The thin gloss of civilization seems to be cracking. But the riot lasts only a few moments. The day's classes—Hotchkiss has classes six mornings a week—are about to begin.

• **Daily Routine**—The fathers trail along. They squeeze behind classroom desks and move from room to room, going through a regular, routine day with their sons. The round of classes ends at 12:40 when most of the fathers take their boys off to Lakeville or Salisbury or Canaan for a steak lunch. Back at school, the boys whip off their neckties and jackets, bundle into rougher clothes and head for the football field to watch the game with Trinity. A father, back from a session with one of the masters to talk about Johnnie's work, drifts over to the field to join the Hotchkiss rooting section.

• **Homeward Bound**—As the game ends, they move back slowly in separate pairs. The elms and birches are casting long shadows. Walking close together now, one couple stops at the cars parked around the buildings. A Ford station wagon starts down the road and a boy waves. A Mercedes follows. Fathers' Day is over and the boys turn back to their rooms and books as the men head for the cities where the world's work awaits them.

(Story continues on page 125)



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EDUCATION

Prep School: New Role For an Old Tradition

Resisting change, steadfastly classical, a small group of Eastern boarding schools, once considered effete, have come to a high place in education. This one is Hotchkiss.



At school you are not engaged so much in acquiring knowledge as in making mental efforts under criticism. A certain amount of knowledge you can indeed with average faculties acquire so as to retain, nor need you regret the hours you spend on much that is forgotten, for the shadow of lost knowledge at least protects you from many illusions. But you go to a great school not so much for knowledge as for arts and habits; for the habit of attention, for the art of expression, for the art of assuming at a moment's notice a new intellectual position, for the art of entering quickly into another person's thoughts, for the habit of submitting to censure and refutation, for the art of indicating assent or dissent in graduated terms, for the habit of regarding minute points of accuracy, for the art of working out what is possible in a given time, for taste, for discrimination, for mental courage and mental soberness.

This definition of the purpose of education was formulated by William Johnson Cory, 19th Century master at Eton. It is still the declared objective of life at The Hotchkiss School in Lakeville, Conn. (cover and pictures), and at about 50 other boarding schools for boys, clustered mostly in Connecticut and Massachusetts.

In these schools, about 12,000 boys, a tiny fraction of the U. S. high school population, get what is certainly the most expensive and may be the best training that America has to offer.

It is classical education without any frills. Most of these schools haven't made a change in their curriculum for a generation. Ancient and modern languages, mathematics, English, and Bible are the core courses required of all.

Nor have they changed their methods. Discipline is strict, rules are rigid, boys do a prodigious amount of work. Teachers are "masters" and are accorded every token of authority and respect. Obliterated is the separation from religion upon which public education insists. In a school like Hotchkiss, the day starts in chapel, and worship of God is relied on to bind up the spirit of the school.

(Story continues)



THE GREEK CLASS: Eight boys and a master; form, content, and method have hardly changed in 300 years. Greek is a prep trademark.



DAILY ATHLETICS: Sports and games, varied to the seasons, are required in the old "playing fields of Eton" tradition.



THE TUTORIAL RELATIONSHIP: Central to the prep school system of educating, is boys and masters living and thinking together.

One-fourth of the population, about 40-million young Americans, go to school. The overwhelming majority attend institutions that, being tax-supported, are part of the nation's public school system. Something less than 5-million are in elementary and secondary private schools. Of this group, more than 4-million now are in parochial schools operated by the Roman Catholic Church. About another quarter-million are in denominational schools attached to Protestant and Jewish churches and to the Society of Friends. The rest, around 2% of the six-to-18-year-olds being educated, attend what are known as independent schools.

• **Wide Variation**—Independent schools are privately financed and privately controlled and do not, by definition, include the strictly parochial institutions of any denomination. There are about 3,000 of them in the U.S., ranging widely in geographic distribution, quality, reputation, and cost. As parents have become more dissatisfied with public schools, private schools have sprung up at a great rate and established institutions are flooded with applications. Most of the independents are day schools (non-resident) and coeducational and they make a very miscellaneous group. But among them are some 400 that are members of the Secondary Education Board, headquartered in Milton, Mass. They are girls, boys, and coeducational institutions, day and boarding, and they use the SEB examinations for entrance and placement purposes, which makes their formal standards for admittance the highest in the country.

I. Highly Select

Numbered among the 400 are 50-odd residence schools for boys that—by tradition, regimen, and purpose—are America's closest equivalent to the great English training schools: Eton, Harrow, Rugby, and Winchester.

Just as the four English schools send most of their graduates to Oxford and Cambridge and many into high position in life, so these American counterparts of theirs, with a total student body of about 12,000 send graduates to Harvard, Yale, Princeton, and a few other leading universities, and on to further distinctions. These 50-odd schools are not taking many more boys than they took a decade ago. They are convinced that too much enlargement would alter their character. Accordingly, they show a smaller growth in enrollment than any other section of U.S. education. A survey just completed by the A. N. Marquis Co., publishers of Who's Who in America, finds that although they are a small fraction of the U.S., one out of every four of the 46,000 listings in Who's Who went to a private sec-



HEADMASTER at Hotchkiss is Thomas Huntington Chappel who works late. He personally adds the school's evaluation to every report on students, which goes to parents.

ondary school. The bulk of the private schools' biographies in the volume are from the 50-odd preps that stand at the peak of American secondary education. The most, naturally enough, attended one of the three largest and oldest of these schools: Phillips Academy at Andover, Mass., Phillips Exeter at Exeter, N. H., and the Hill School at Pottstown, Pa.

• **New England Roots**—Of the 50-odd, all but 10 are east of the Appalachians and are rooted in New England folkways. They have in common that they are boys' boarding schools, are attached to a classical curriculum, exact high standards of work and deportment, have—unlike other schools—no concern at all for training boys who are not going on to college. They are expensive, exclusive, and fashionable.

Fees for one academic year's attendance range from the system in effect at Kent—where parents pay no fixed

amount, but what they judge they can afford—to the \$5,000-plus charged by the Oxford Academy in New Jersey. The big, heavily endowed Andover and Exeter schools cost about \$1,700; Hotchkiss, near the middle of the range, charges \$2,150. Such fees cover tuition, board, furnished room, library, athletics, and entertainment costs. Travel, laundry, books, and spending money is additional.

• **Social Composition**—However, close to 20% of the students now in these schools are scholarship boys, excused from all or part of the fees. This has been one of the most significant developments in these schools in the last generation. In order to get a better cross-section and attract boys for whom a prep school would otherwise be impossible, they have reached out to rural Mississippi, to Harlem, to mountain towns in the West, and to Midwestern cities, offering generous scholarship aid

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to families that can't afford to pay for private schooling.

The result has been a marked change in the social composition of these schools. No longer are they the private province of the well-born, well-heeled Eastern families. The boy whose father went to Groton, St. Paul's, St. Mark's, Hotchkiss, or any of the others is not automatically admitted. Other things being equal, the boy of immigrant parents, the Negro, the Puerto Rican, the Filipino, the Chinese-American, actually, if he wants it, has a better chance of getting in than the boy from Scarsdale, N. Y., Darien, Conn., or Boston, Mass. The reason is simple: Too many of the latter apply and the schools all want to leaven the loaf.

• **Intellectual Elite**—Hence the basis of the schools' exclusiveness has shifted. With many more applications than they can possibly accommodate, selection has tended toward seeking an intellectual elite and the "well-rounded" boy, away from the elitehood of lineage.

Both concern about the old image they presented to the public—effete and aristocratic—and a broadened feeling of democratic responsibility contributed to the change. But most importantly, it results from a belief that a boy gets real educational and maturational advantages from working, playing, and living with others from a wide variety of backgrounds. Any one of these schools today probably encompasses greater economic, social, and ethnic differences among its students than the average suburban or even urban public high school.

• **Mark of Distinction**—They remain fashionable, however. To the wealthy, successful businessman—and to his wife—living in a good suburb, in a fine modern house, driving a Cadillac, golfing at the best country club, there is little left in modern life that will, outwardly at least, distinguish him from his peers in his own social circle. Sending his son to a famous Eastern prep school may do it. Such motives are not at all

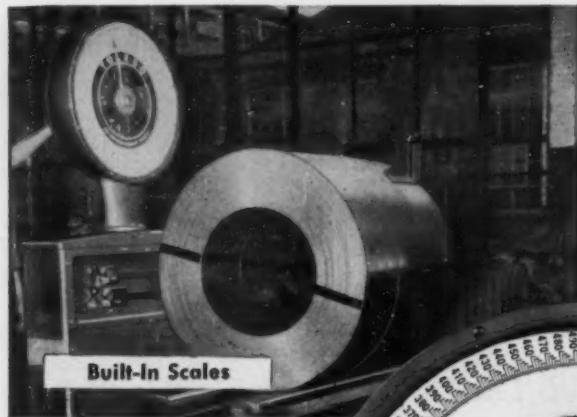
unfamiliar to the admissions officers of these schools. They note now a new wave of applications from Texas.

In the end, though, admission depends on the boy. His elementary school record is analyzed, teachers and coaches and family friends who know him are asked searching questions, his I.Q. is measured, he sits through formidable aptitude and achievement tests, he must present himself and his parents at school for a pre-admission interview. The parents are along at that meeting not, primarily, so they, too, can be appraised, but because the school interviewer tries to get some insight into the boy's relations with his parents as a key to the boy himself.

• **Careful Sifting**—Interviewers are not looking only for the boy who checks out brilliantly in every respect. They're looking, too, for what educators these days call "late bloomers"—the ones who are late in getting started at making their mark but who, once stimulated, push into the lead. There's no greater satisfaction for any good school or good teacher than to fan some smouldering embers into a brilliant intellectual blaze, or to bring out of a warping shell of inversion a well-adjusted, out-giving, happy young man.

Thus, with the proportion of applications to admissions in these schools running at about the same rate, or even higher, than is the case in the top colleges, they can be, and they are, highly selective. But no one can seriously argue that it is only what the schools do for the boys that put them later into Who's Who and on the nation's top income level. What the schools contribute is an imponderable amount added to quality already there.

• **Errors in Judgment**—As anyone who has ever done much hiring knows, however, the most careful selection process ever devised cannot forefend against human error and unpredictable quirks in human nature. A good prep school will flunk out or expel about



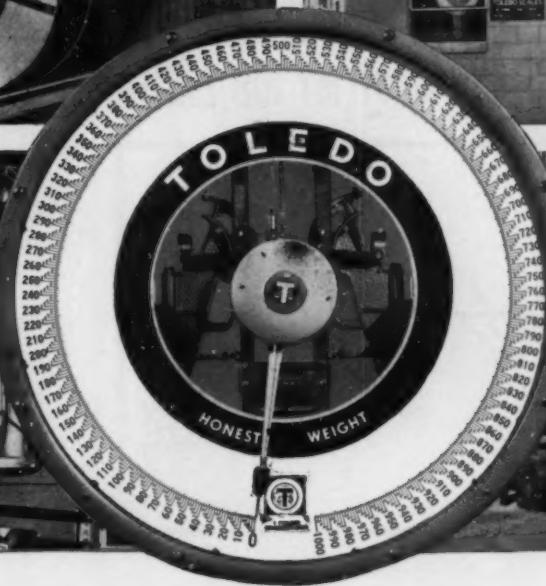
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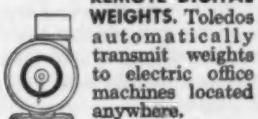
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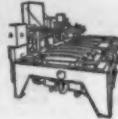
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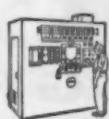
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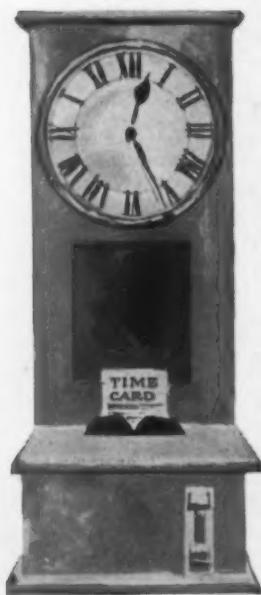
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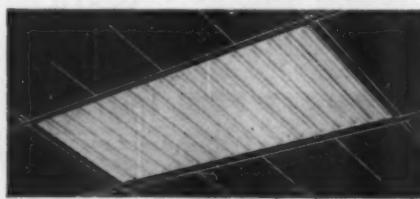
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the same percentage of its students as does Harvard College. Most of the drop-outs fail to show the capacities that the admissions officer thought were there. They can't keep up with their class and are asked to leave or not come back. Another, smaller group, is unsettled by the sharp transition from a sheltered home life to the impersonal, life-by-rules that prep school existence is. They suffer badly and become disciplinary problems disruptive to the community.

Lawrenceville, and a few other of the schools, now have psychiatric help available; but if in the end a boy cannot make a reasonable happy adjustment he's eliminated. Most boys in these groups head back to day schools and home, unless they come from broken families.

• **Puritan Virtues**—Then there are some who do well, but get caught in a serious breech of rules. Rules are deliberately strict, reflecting an attachment to the old Puritan virtues of abstinence from worldly pleasures and self-denial. Hotchkiss and some of the others have expelled boys for smoking. Almost all the schools make clear that they hold students responsible for gentlemanly conduct even when away from campus and on vacation. It was reported to one of the schools that a boy of theirs, wearing a school blazer, had been drinking conspicuously from a flask and acting rowdy in a Boston-to-New York airliner. The charges were investigated, proven, and the boy was summarily dismissed.

In cases of this kind, most boys will transfer to another prep school. They are acceptable on the grounds that their record is otherwise satisfactory and that the jolt of expulsion may be a salutary experience. It usually is.

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LUNCH TIME marks the end of the day's classwork. Athletics and study are afternoon program, evenings bring more study and activities.

who spend their years from 14 to 18 in a good prep school, the values and benefits cannot be calculated. They can't get through without learning to work their mind and work it hard. They must participate with their fellows in cooperative activities, such as athletics, dramatics, and student government. They must accept the rules. They work, play, and live in a community of peers and with their masters where the satisfactions of achievement and the attainment of status are largely set by a tradition that emphasizes intellectual, spiritual, and cooperative attributes.

II. The Program

If a boy ends up in the first half of his class at one of these schools he will, in general, be accepted by the college of his choice. He will have had—on the average—four years of English grammar, composition, and literature ranging from Shakespeare to James Joyce; four years of mathematics up to, and in some including, calculus; four years of an ancient language, Latin and/or Greek, equipping him to sight-read Ovid, Pliny, and some Catullus, or Homer; four years of a modern language, which he should be able to read and write with ease and to speak in a native accent. Beyond this, Bible is usually required, and some art and music. History, sciences, and a few other courses are largely elective.

The subject matter of a standard public school course in current events is met in Bible, where issues of the day will be discussed in terms of the Christian ethic. With radio and television forbidden or strictly regulated, many boys overcome their isolation from world affairs by having their home town newspaper sent to them, or by subscribing to the N. Y. Times, N. Y.

Herald-Tribune, or Time magazine.

• **Athletics**—In addition to meeting academic requirements, a boy will—unless he has physical disabilities—have engaged in a year-round program of sport and athletics; team play and competition that is either interscholastic or intramural. He will be encouraged, though not pushed, to work on the school paper or literary magazine or yearbook, to join the glee club or some music group, to participate in dramatics, go out for debating, the chess club, a foreign language or science club, or some religious or charitable society. The school has honors and prizes to bestow upon him for scholastic superiority, athletic prowess, special talents, and general excellence.

A basic requirement for all boys is that they keep their rooms and their persons clean and neat enough to meet the school's standards; and beyond doing some housekeeping of their own many schools assign them in turn to wait on table or work in the dining room or kitchen or around the grounds.

Time away from campus is strictly regulated. For some schools, the town in which it is located is out of bounds. At Hotchkiss, and some of the others, limited week-end absences are earned by high grades. From morning chapel to lights-out at night, a boy is either at an assigned place or somewhere on the campus.

• **Greater Academic Leeway**—Because they are private institutions, prep schools do not have to teach a course like civics that many public school boards require. Not taking tax money, they can make religion part of the school life, and they can hire teachers with no regard for normal school training or teacher certificates. French, for example, is usually taught by men who

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"... the master is a large and respected figure in the prep school community..."

STORY starts on p. 116

were born in France or lived there a good part of their life and never were inside a teachers' college.

Faculty salaries in these schools range from around \$2,500 a year for a new, unmarried master, to something over \$10,000. In addition to salary, the master has an apartment in the dormitory or a house for himself and his family. He and his wife may take their meals in the school dining room. With salary and perquisites, prep schools pay teachers substantially more than public schools. Tuition fees, endowments, and alumni gifts finance the school's operations, provide scholarship funds, and build the fine libraries, churches, swimming pools, and artificial ice hockey rinks that make these schools' plants superior to most small or medium-size colleges.

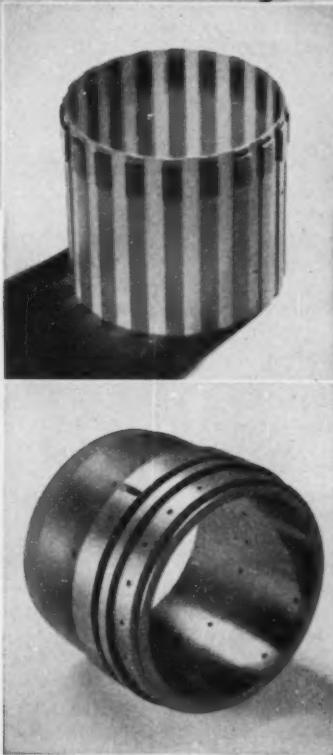
The master is a large and respected figure in the prep school community and many men find it an ideal life, more satisfactory even than college teaching for which they may be well qualified. Some prep school masters are noted scholars, authors, and critics in their own right; they usually spend the summer in travel or in some scholarly pursuit—likely, now, financed by some foundation.

III. The Balance Sheet

Taken literally by itself, what a good prep school can give a boy is a superb training and a unique life experience. But the prep school idea is not universally admired. Critics, some of the sharpest of whom are themselves prep school graduates, point out that it means removing a boy from his family during what may be the most formative and difficult years of his life. There is no doubt that some boys, and family life, have suffered from it. Also, prep schools, no matter how representative their population, are insular and apart. Their codes and values are special and precious and may bear little resemblance to the codes and values the rest of the world lives by. They isolate a boy from girls at a time when he is becoming acutely aware of the difference between the sexes and he may find that some boys from coeducational schools have developed a social ease and grace far beyond his own.

• **Conformity**—But perhaps the most widely voiced criticisms of these schools is that they impose conformity and make snobs. There is some truth in

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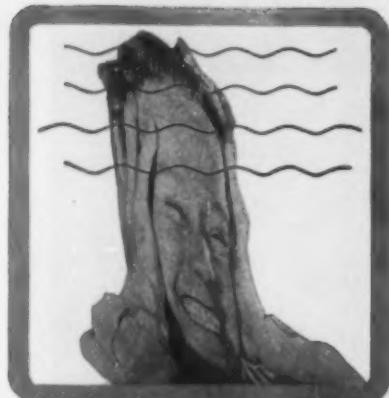
Write or call Taylor for a discussion of your needs . . . let us show you how we can be of service.

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Vulcanized Fibre

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CLAD LAMINATES FOR BETTER PRINTED CIRCUITS



**NOISE
cutting your
employee productivity?**



Jenn-Air QT Belt Drive Roof Exhaustor. Full ball bearing drive and motor mounted out of air stream. Non-overloading blade ensures long life — smooth operation. Low contour design.

Quiet-Tested

JENN-AIR Exhausters
Provide Fresh Air on the "Q-T"

Exhausters, providing ventilation, are intended to keep employees alert and efficient. Thus, they defeat their own purpose if they create distracting noise. But Jenn-Air low contour Roof and Wall Exhausters skillfully serve *QUIETLY* . . . drawing out the impure air, bringing in the fresh air . . . with an extremely low noise level. Rugged performers, too, Jenn-Air Exhausters are made of heavy gauge aluminum . . . motors are pre-lubricated for 10 years' normal service. Therefore, when you use Jenn-Air Exhausters for ventilating, you can count on longer, better, trouble-free service. And you'll agree—there's no investment as sound as the quietness of Jenn-Air Exhausters.

JENN-AIR PRODUCTS COMPANY, INC.
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Customer:
Please rush me descriptive literature on Quiet-Tested Jenn-Air Exhausters.

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1102 Stadium Drive, Indianapolis 7, Indiana

"... boys either come from families that can afford to pay for an expensive education, or they are given scholarships on the basis of their own qualities . . ."

STORY starts on p. 116

both of these charges. Boys are under considerable pressure, both overt and subtle, to pattern themselves on some archetype that is the school's ideal. The archetype may be mythical, though not, because of that, less real. Or it may be an actual figure: the headmaster, the president of the student council, the winner of the Fidelity Prize.

In defense of such mores, it has been pointed out that adolescents everywhere tend to emulate some model; that the habit is not more pronounced in a prep school, but only more noticeable, because most boys there have the same model. And anyway, it is asked, doesn't the gravamen of the charge come down to whether the model—what is being conformed to—is good or bad? In a prep school, say their defenders, the model is a careful construction by the school administrators, designed to be good. Elsewhere it is chosen by caprice. To which the critics rejoin: Yes, but elsewhere there is a choice, but not at a place like Groton; having the choice is important.

Be that as it may, the fact is that there is no dearth of eccentrics, individualists, and non-conformists among prep school boys. They may be among the lonely and unhappy ones, but it is likely they will be that wherever they are.

• **Snobbery**—The charge of snobism has more weight. Prep school boys either come from families that can afford to pay for an expensive education, or they are given scholarships on the basis of their own qualities. This is raw material for a sense of superiority. Most of them develop a strong pride in the school they go to; fed on an increasing information about the school's exploits and the attainments of the school's alumni. Its Nobel Prize winners, its Pulitzer Prize poets, its newspaper publishers, novelists, ambassadors, high clergymen, and great industrialists return to the school, address an assembly, visit old masters, cheer The Blue at a swimming meet; it is very evident that they have a real connection to the same thing of which the smallest 14-year-old from Lake Forest, Ill., is a part. Great American family names attach to these schools: one has educated the Rockefellers, another the Fords, another the Roosevelts, another the du Ponts, another the Vanderbilts, Whitneys, Cabots, and Lodges. Back home from all this verdant ivy at a junior ball in Dallas or Des Moines, a

prepster might look down what he thinks of as his patrician nose at the natives who are his contemporaries.

• **Corrective Medicine**—The school authorities are very conscious of this unpleasant byproduct. While they insist it is limited to a few, most of whom soon grow out of it or have it knocked out of them, they do everything they can to counteract it. That isn't a great deal. The best medicine they know requires family cooperation, which isn't always forthcoming. They want mothers and fathers to help discredit snobbish traits. Their best prescription—and this is not limited to boys with snob tendencies—is a summer job at anything from caddying to factory work. More than others, prep school boys need to have their noses rubbed in life's realities.

• **Paradoxical Handicap**—A prep school boy's advantages and his sense of superiority may prove to be his undoing in college. He has a long head start and usually can breeze through his first-year college work without much effort, while the public school graduate has to sweat. At Princeton, where the student body is about 50-50 prep and public school graduates, a continuing study shows that at the end of the freshman year the preps are far ahead. By the end of the sophomore year, the preps still breeze while the public school boys continue with the work habits they had to acquire their first year, things are much more even. In the third and fourth years, the public school boys are, on the average, well in the lead. Princeton is at pains to point out in releasing this information that it gets a cross-section of prep school boys while most of its public school-trained students—who apply in vastly greater number than the college can take—stand at the very top of their high school class, are editors of their school papers, captains of the debating teams, valedictorians, and the like.

• **Inexperience With Freedom**—A prep school background will give some boys other disabilities in college. A large coeducational Eastern university that gets a small number of prep school graduates reports that, as a group, the preps make up the majority of cases before the university's disciplinary committee. "A too-rigidly supervised pre-college life," is the reason given. "Boarding school boys don't get enough experience with freedom. When they get here, they're all on their own and

136 Education

BUSINESS WEEK • Oct. 26, 1957

MONROE'S ALL-ELECTRONIC COMPUTER

Breaks the \$10,000 Cost Barrier



New MONROBOT® IX



Here is an all-electronic computer at a price near \$10,000 which, even in these days of scientific triumph, represents a milestone in the computation art.

Truly to comprehend this machine you must see it in action . . . and you can. With it, you fly through invoicing electronically; fractions without decimal equivalents, discounts without conversions, end-of-the-day totals on command, and even in foreign currency.

Then call or write the Accounting Machine Division, Monroe Calculating Machine Company, Orange, N. J., to learn how electronics can build greater profit for you.

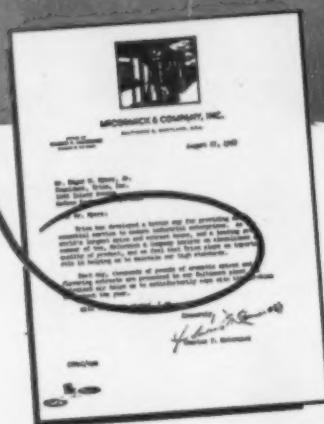


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"McCormick and Co. insists on cleanliness and quality of product... TRION plays an important role in helping us to maintain our high standards."

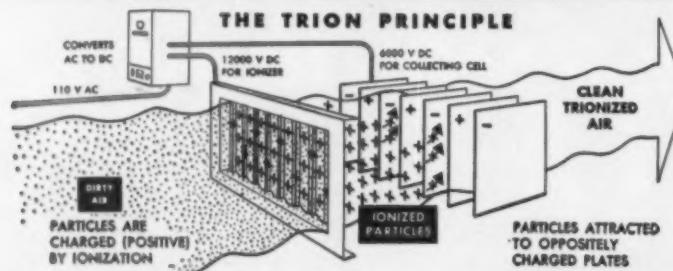


Thousands of pounds of spices and flavoring extracts are processed daily in the Baltimore plant of McCormick and Company. Trion Electronic Air Cleaners keep the air sterile clean. Airborne dust, dirt, smoke, soot, pollen, germs are practically eliminated. Trionized air in the offices also promotes employee health and minimizes cleaning costs.

TRIONIZED AIR IS MORE THAN FILTERED AIR

Trion is much more than a filter. It traps even sub-microscopic airborne particles and washes them automatically down the drain. You'll find Trionized air pays for itself in your business buildings, a cost-saving comfort in your home. Investigate Trion today.

Trion cleans air in hospitals, schools, laboratories, hotels, office buildings, food plants and other buildings throughout the world.



Trion removes practically all airborne particles, even as small as 1/2,500,000th of an inch, by National Bureau of Standards Dust Spot Test.

THE TREND IN MODERN BUILDINGS IS TO TRION ELECTRONIC AIR CLEANING

Look in Yellow Pages under Filters-Air or write:

TRION, INC.

McKees Rocks, Pa.

In Metropolitan Pittsburgh



"... Harvard and Stanford report excellent experience with prep graduates . . ."

STORY starts on p. 116

they don't know how to handle themselves. They become the campus drunks, the stay-out-all-nights, the problem students."

The prep school advocate's answer is that this particular university is a second or third choice for prep graduates, that it doesn't get much of the top half, and that the university has failed to challenge the boy. But to a limited degree, some prep school boys draw the same kind of criticism from some other, more sought-after colleges, which blame both the prep school and "too-sheltered homes" for the disequilibrating effect of college freedom.

• Special Treatment—Harvard and Stanford, on the other hand report excellent experience with prep graduates, as do the smaller Amherst and Williams. Harvard encourages able preps to enroll in advance-standing courses or matriculate in the "honors program." This precludes their coasting along on what they've already learned, keeps them humping, and permits their graduating or taking graduate courses after three years in Cambridge. By their "house" system, Harvard and Yale discourage prep graduates from living together or being in the same tutorial or preceptorial group. This deters the formation of the super-sophisticated and egotistical cliques that some other colleges complain the preps form.

But all such judgments and criticisms, the conscientious college dean will say, are broad and tenuous generalizations. The prep school can do more for the exceptional and the brilliant boy than public schools, but what happens in the end depends most on the boy's own native stuff.

IV. Alumni Talk

This summer, Hotchkiss sent a questionnaire to all of its living graduates in an effort to find out a little of what did happen to them in the end—or at the point of life they'd reached. The responses, in such high percentage as to make a direct mail operator turn green with envy, are still coming in and are not all tabulated. But a few things are already clear. Chief among them is that by material standards this group of graduates of one notable prep school will average out into the top 1% of the nation's income group. It is an unusual one among them who does not own stocks, bonds,



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Several leading firms helped develop inertial navigation. However,

ARMA was selected to design and produce the guidance system for **Titan**—America's newest intercontinental ballistic weapon.

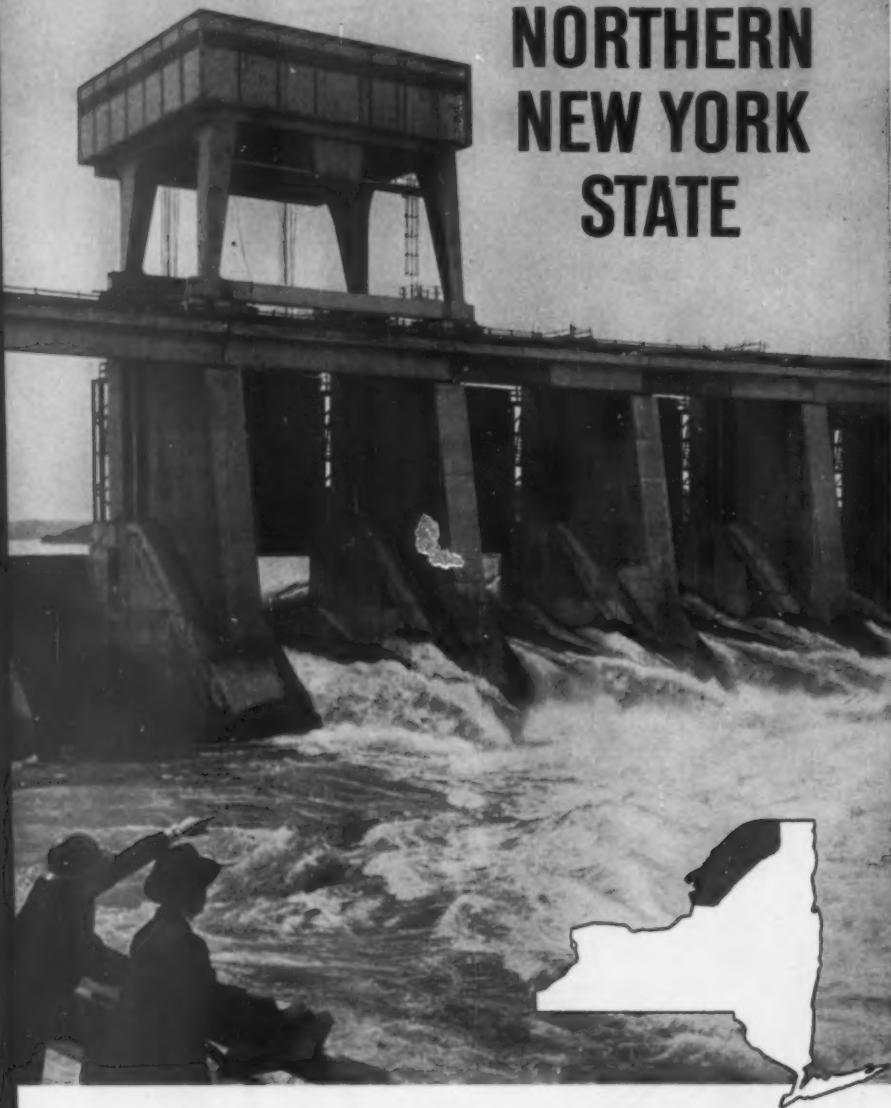
That fact helps spell out the calibre of the brains, the imagination, and

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the production skills that **ARMA** brings to bear on problems in advanced mechanical, electromechanical and electronic systems. **ARMA** . . . Garden City, N. Y. A Division of American Bosch Arma Corporation.

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NORTHERN NEW YORK STATE



The St. Lawrence Seaway and Power Project opens a new era of business opportunity. And a Marine Midland bank knows the area.

In just two years' time, commerce and industry in New York's north country will gain rich benefits from the completed St. Lawrence Seaway and Power Project. Now is the time to consider the budding opportunities along this new seacoast.

You'll find good plant locations in communities stretching from Watertown and Adams in the south, to Massena and Malone in the north. Also you will find an alert labor force, complete banking facilities, and local officials who are

happy to cooperate with you. Schools are up to date. Living is pleasant in this scenic area, with year-round recreational activities you'll enjoy.

A Marine Midland bank in Northern New York State serves this area with 12 offices in 10 towns. For information, write Sidney S. McCumber, President of The Northern New York Trust Company, Watertown, New York. This Marine Midland banker will gladly help you with the bank's detailed knowledge of men, markets and materials.

MARINE MIDLAND BANKS



Building with the state of New York
through 154 offices in 80 communities
Members Federal Deposit Insurance Corporation

"... it was evident that the school could still exercise its old magic . . ."

STORY starts on p. 116

and real estate. They have traveled widely, divorced little, propagated relatively small families. They own an amazing number and a bewildering variety of foreign-made automobiles. Among them are a large number of men who are in positions at the very top of manufacturing companies, banks, financial institutions; and among them are top men in science, medicine, engineering, journalism, education, religion, architecture, belles lettres, and public life. An unexpected number are architects—due to Yale influences. A surprising number are foresters and farmers—perhaps because at Hotchkiss the "woods squad" is the alternative to compulsory athletics.

Most of them are church members. They are almost all college graduates—Yale is by far the most common college with Harvard, Princeton, and Williams showing a high incidence. A lot have done graduate work and have graduate degrees: Harvard, M.I.T., Yale, and universities abroad. They claim to have read a far larger number of books during the last year than the U.S. average. And almost all say that they would prefer a prep school education for their own sons. Those who volunteer to suggest an occupation they would choose for their own son show a distinct bias toward what are called the learned professions.

• **Soul Searching**—In what proved to be the most personally revealing responses to the questionnaire, the school asked, "What have been the advantages and disadvantages in your life which can be attributed to your Hotchkiss experience?" Many alumni with a patent sincerity and a great earnestness used the question for a searching and critical review of their whole lives, writing at length about their business or profession, their marriage and family, their religion or lack of it, their social relations, and their philosophy. It was evident that the school could still exercise its old magic on them: getting them to look at painful facts, to make a detached appraisal of themselves, to stop and reflect.

Some wrote that the high ideals they got at Hotchkiss made it too difficult for them to make the practical compromises that life requires. Others found that too-great ambitions had been instilled for their temperament and capacities. Many said that they still bore scars from being away from home at a critical period of their life, that their lack of normal contact with girls had



Powering a Voice From Outer Space

...or your pocket radio!



In the radio transmitter of the forthcoming earth satellite . . . or your pocket radio — tiny Mallory Mercury Batteries supply the utmost in sure, dependable power.

When the earth satellite is rocketed into the exosphere and begins its hurtling 18,000-miles-an-hour course around the earth, a vast wealth of information will for the first time become directly available to mankind.

The satellite launching will culminate months of engineering to cram into a 20-inch sphere the instruments to prove the mysteries of outer space and a radio transmitter to relay data to ground observers.

Planned as the power source for the satellite's vital radio transmitter are the same, tiny Mallory Mercury Batteries that have already helped make miniaturization possible in a wide variety of other applications

—from pocket radios and tape recorders to tiny, inconspicuous hearing aids.

A product of Mallory research, these unique batteries provide far longer life and steadier output than conventional batteries, yet take up far less space and cost less per hour.

They are an outstanding example of the kind of pioneering development you can expect from Mallory — the company *at home in tomorrow . . .* serving the nation's growth industries with precision products and broad experience in the fields of electronics, electrochemistry and specialized metallurgy.



New PAYLOADER attachment



CUTS handling COSTS in half

"The new scrap grab attachment for our Model HA 'PAYLOADER' tractor-shovel is the ideal way to unload trucks and boxcars . . . it has cut our unloading time in half," says H. A. Estabrook, V. P. for Operations, of U. S. Reduction Co. The scrap grab operation at their East Chicago, Indiana plant consists of unloading tangled metal turnings and assorted light metal scraps from trucks and boxcars, and doing many other materials-handling chores.

The combination of scrap-grab action with "PAYLOADER" compactness and maneuverability has proved particularly time-saving and cost-reducing when unloading tangled scrap shipments. First, the unit has the power to force its forks into the scrap pile. Then, the hydraulic-powered arms grasp and hold the materials tightly so that it comes out with a heaping load.

If you have awkward, bulky materials (like metal turnings, wire coils, hides, bark, bales or similar loose materials) that you want to scoop up, carry and load or stockpile in lots up to 2,250 lbs. at a time, the scrap-grab attachment on a "PAYLOADER" is the tool that will save time and money for you too. Get full details and a demonstration from your "PAYLOADER" Distributor. The Frank G. Hough Co., 700 Sunnyside Ave., Libertyville, Ill.



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Send full
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data on

- Model HA Scrap Grab
(1,500 lbs. capacity)
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(2,250 lbs. capacity)

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BW

created later problems. Some deplored their naivete about the "real world" and "other people," attributing it to artificial prep school life and Hotchkiss "isolation." Many echoed college deans, saying they were "overeducated" and found no challenge or intellectual stimulation in college, or could not handle their new freedom.

• **The Real Achievements**—But, with very few exceptions, even those who wrote with a trace of bitterness about disadvantages attributable to Hotchkiss had another side of their ledger to which they gave far greater weight. Here were listed again and again such advantages as high ideals, a sense of honor, intellectual awakening, moral standards, religion, taste, self-confidence, lifelong friendships, superior education, gentlemanliness, good manners. Three comments that frequently recur, with minor variation, are probably more than any others satisfying to the Hotchkiss trustees as their alumni look back at their school experience from a life's perspective.

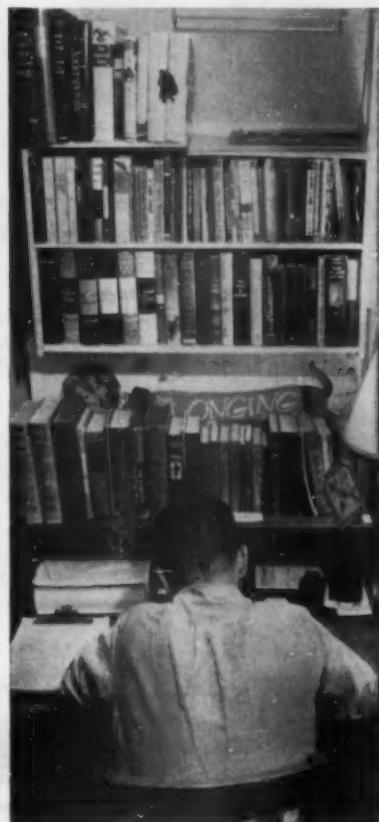
These are:

"It civilized me."

"It gave me character."

"It made mental effort afterward seem easy by comparison with what Hotchkiss demanded."

Much more than those things it would be bootless to hope for in the education of a young man.



blueprint for Canadian Power



Ontario Hydro's Richard L. Hearn Generating Station in Toronto went on the line in 1951 with 100,000 kilowatts. By 1960 it will be generating 1,200,000 kilowatts . . . an average increase of over 100,000 kilowatts a year! When completed, the Hearn Station will be Canada's largest thermal generating facility.

The Hydro-Electric Power Commission of Ontario awarded the design and construction of the original unit and all subsequent additions to Stone & Webster.

In Canada, in the United States, all over the free

world Stone & Webster Engineering Corporation and its affiliates are providing on-the-spot engineering services to many industries. And as a completely integrated organization Stone & Webster can handle a single engineering phase or take full responsibility for the completion of a major project including Design, Construction, Consulting Engineering, Reports, Appraisals and Examinations.

*Write or call us for information
as to how our experience may be
of assistance to you.*

1952 - Second
100,000 kw unit
went on the line.

1953 - Two
additional 100,000
kw units placed in
operation.

1960 - Four
200,000 kw units
scheduled for
completion.

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From the needle-nose radome of a supersonic fighter
comes a new steel-strong material for industry



**Have you seen these rugged, colorful cabinets
for the new Motorola portable record player?**

**They'll keep their good looks—
because they're made of resin-bonded glass fiber**

It was a formidable list of requirements that Motorola gave to 3M for the cabinet of its new portable record player.

The cabinet was designed as a contoured and sculptured form, for both function and beauty. It had to be extremely lightweight—yet so strong and so tough that it could endure years of use and abuse without denting or scuffing. And it had to be made in a variety of permanent colors.

The intricate form ruled out wood. It could have been stamped in metal, but the lightweight metals dented too easily and the stronger metals were too heavy. And metal would have called for a paint finish (which would eventually mar) or some sort of fabric covering (which would have added to the cost).

Resin-bonded glass fiber met all these exacting requirements—and even added two important bonus features: the glass fiber cabinet has much better acoustical qualities than metal, and it eliminates the possibility of electrical shock from the cabinet. There are no seams to open, no joints to split. The modern decorator colors are permanently fused into the glass-and-resin shell. The lus-

trous surface is dent- and scuff-proof. It is not affected by heat, humidity, sun, or rain. Grease, oil, and ink wipe off clean.

3M's high-strength structural plastics are basically the same type of material used in airborne radomes, the thin shells that house radar equipment. They are ideal for a wide variety of consumer and industrial products. They always add quality and sales appeal... often reduce the unit cost. They can be formed to almost any contour, in almost any size—at production-line speed. Motorola's colorful cabinets are forerunners of other stylish resin-bonded glass fiber products now on the way.

Today 3M has the most experienced engineering staff and the most complete production facilities in the reinforced-plastics industry. 3M's designers and engineers are ready to work with your own people if you have a product that is adaptable to reinforced-plastics manufacture. Or they'll help you design a new product that will take full advantage of the unique qualities of structural plastics. For more information, write on your letterhead to 3M Company, Box 91, Gardena, California.

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World's most experienced manufacturer of resin-bonded glass fiber products



FORM OF THE FUTURE: RESIN-BONDED GLASS FIBER





**This Multi-Row Cylindrical Roller Bearing is another of the
high quality anti-friction bearings developed by SKF Industries, Inc.**

Only **SKF** designs and manufactures a complete line of all types and sizes of the four basic anti-friction bearings . . . ball bearings; cylindrical, spherical and tapered roller bearings. Because we make all types, you can *always* be sure of getting the right bearing in the right place.

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INTERNATIONAL OUTLOOK

BUSINESS WEEK

OCT. 26, 1957



Pres. Eisenhower and British Prime Minister Macmillan are trying to reestablish something of the World War II alliance. This is their answer to (1) Sputnik and the rapid Soviet advance in military technology; and (2) the Kremlin's increasingly aggressive policy in the Middle East.

For the U. S., scientific pooling could make a real difference, especially if the Administration can get Congress to amend the McMahon Act limiting the exchange of atomic information. There is nuclear and missile research going on abroad that we could use to our military advantage (page 41).

Pooling, however, isn't likely to reduce our military budget.

On the contrary, when new facilities are required for joint development we probably will have to pay the bill.

As for Britain, pooling could be a real economic blessing. By British standards, nuclear and ballistic missile programs cost a pretty penny. Beyond the cost, there's the fact that they tie up many of industry's best research scientists and technicians, plus some of the most modern British plants.

There is little chance, though, that the British will completely shift their H-bomb development to this side of the Atlantic. As in this country, British development of A-bombs and H-bombs has paid big dividends in civilian byproducts. And the government scientists directing the British program feel that they are just on the verge of big, new commercial developments.

Britain's ballistic missile program is a different matter. Relatively, this is not so far advanced. Work is widely dispersed throughout industry and it doesn't have the same commercial angles.

It was the Soviet threat in the Middle East, rather than the need for scientific pooling, that brought Macmillan to Washington. Topside talks weren't essential this week to get the pooling under way.

Both Washington and London are uneasy about Nikita Khrushchev's gain in the Middle East.

As U. S. and British officials see it, it is no longer just a case of Moscow fishing in troubled waters to see if its influence can be extended. Now it looks possible that Moscow may intend to blow the lid off in the Middle East by occupying Syria under the phony pretext of a threatened Turkish attack. And Moscow may be planning coups in Jordan or Iraq.

That, of course, would be the most dangerous kind of brinkmanship. It might mean that Khrushchev was trying to see if the U. S. could be scared.

It's hard to find any other explanation for Soviet tactics in the Middle East. It is possible that Khrushchev is playing a domestic political game. On this theory, Khrushchev would keep the war scare going in the Soviet press until just before Nov. 7. That's when the big 40th anniversary celebrations of the Bolshevik Revolution are to be held. Then Khrushchev would calm things down, pose as the great peacemaker. This is a possibility, but it's hard to see why Khrushchev would risk war in the Middle East for such a purpose.

France soon will be on the verge of bankruptcy and anarchy—unless Socialist Guy Mollet can work a miracle and form a strong government.

INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK
OCT. 26, 1957

French finances are in sad shape. At home, the government hasn't enough money to meet its bills over the next two months. (It is almost certain that paychecks for civil servants and workers in government aircraft factories will be delayed.) In its foreign payments, France is sinking further into the red, despite the semi-devaluation of the French franc in August. The franc this week had sunk to new lows in terms of both gold and dollars.

Public unrest is mounting—and not just among the Communists. Plans for Friday's general strike were instigated largely by Catholic and Socialist unions. The Communists are capitalizing on this by planning mass political demonstrations Nov. 7 in support of comrade Khrushchev.

At midweek, Mollet was trying to select a cabinet that would satisfy both his own Socialist party and Antoine Pinay, the Independent conservative leader who failed last week in his effort to form a government.

Pinay has been pushing Mollet to pick his finance minister from the center parties—as a guarantee against too much regimentation of the French economy. There's still a real gulf between Mollet and Pinay. The Socialist leader wants to meet France's economic crisis with new taxes plus a wage and price freeze. Pinay wants to use deep budget cuts and stiff credit restrictions.

—•—
European bankers fear that France will soon have to cut the value of the franc again. The first step, expected very soon, may be to drop the official exchange rate to something close to the current market rates. Then, some bankers feel, Paris will have to follow with a general devaluation of 30% or more.

Such talk is raising doubts across the Atlantic as to whether European exchange rates can stand another shock from Paris.

Money has been returning in a big way from Frankfurt to London and Amsterdam. West Germany's gold and foreign exchange reserves dropped in mid-October for the first time in many months. While this was going on, the Bank of England was taking D-marks and U. S. dollars off the exchange market into London's reserves.

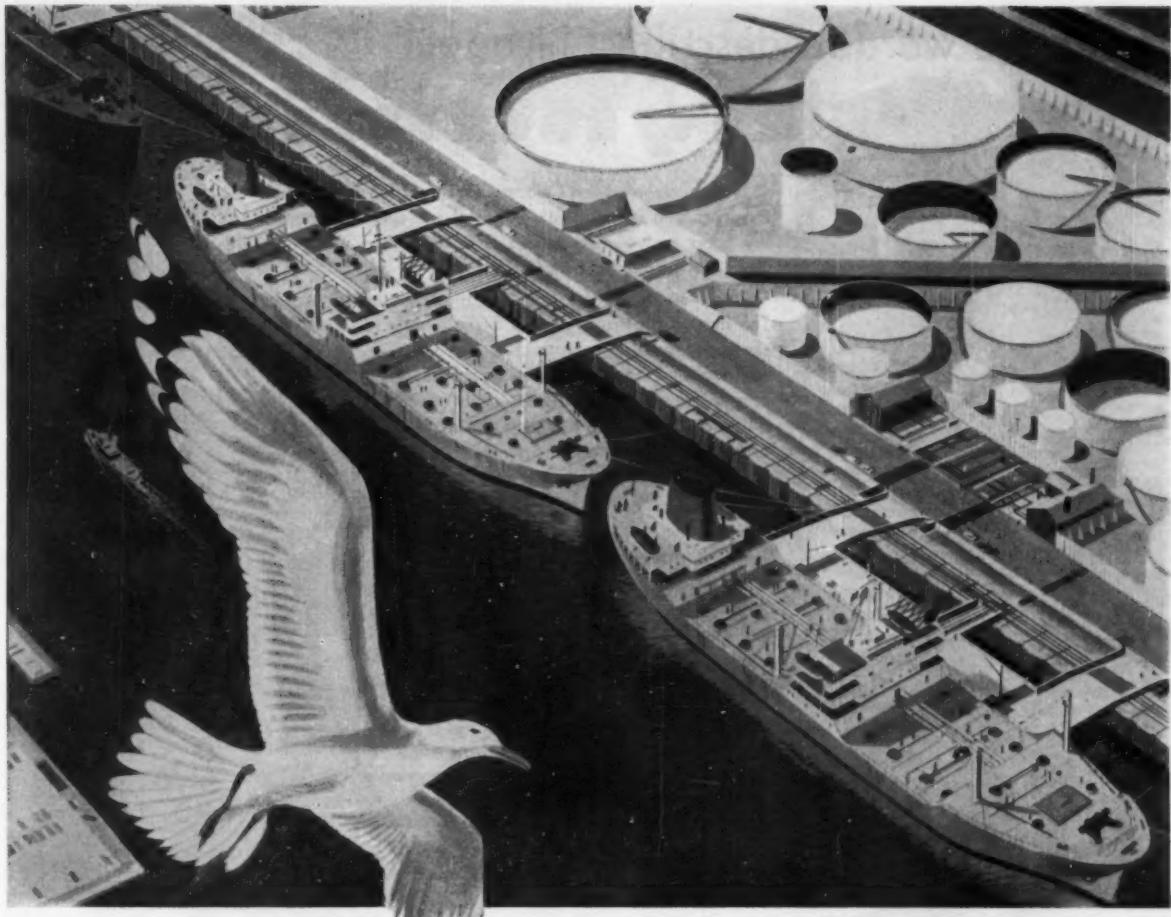
—•—
Seven Latin American countries agreed this week to stockpile over 20% of their exportable coffee crop to prop up declining prices—due to over-production. The new agreement has temporarily pushed up coffee quotations 1¢ a lb. U. S. roasters expect a further 2¢-rise before any leveling out.

The price rise will help Brazil, the No. 1 coffee producer, which has been hurt badly by reduced coffee earnings (BW—Oct. 19'57, p133). But most observers doubt the price-supporting agreement will work out—because of (1) inadequate warehousing facilities in some countries, (2) smuggled shipments, and (3) a continuing coffee surplus.

—•—
Guatemala's new president is Miguel Ortiz Passarelli—protege of Pres. Carlos Castillo Armas, who was assassinated last July.

After elections this week, Gen. Miguel Idigoras Fuentes, opposition candidate backed by extreme right-wingers, stirred up trouble. But Washington thinks Ortiz, with Army backing, is firmly in control. He's expected to follow Castillo Armas' anti-Communist, middle-of-the-road policies.

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New Super Terminal for super tankers

During 1956, Richfield's Marine Terminal at Long Beach, California, was expanded to make it the most modern deep-sea facility in the Long Beach-Los Angeles area.

Nearly a half-mile in length, the terminal will accommodate two giant 45,000-ton tankers and a 16,000-ton tankship simultaneously. Old-style hoses have been replaced with aluminum alloy connectors which eliminate spillage and greatly speed loading operations. New steel storage

tanks now provide a total capacity of 1,500,000 barrels to handle shipments of gasolines, jet fuels, fuel oils and specialty products to Richfield's markets throughout the West, as well as deliveries to the Armed Forces.

Even as this new terminal is completed, plans are under way for an even larger facility at Long Beach—evidence of Richfield's "years-ahead" planning to provide its expanding markets with ever finer petroleum products.

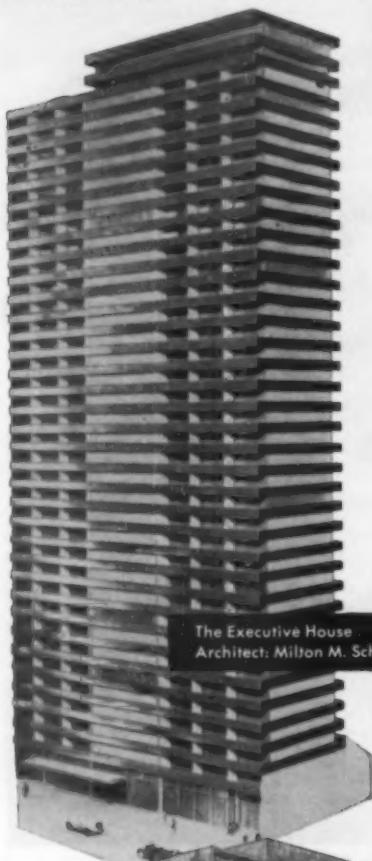
The Far West—where the name Richfield stands for the best in petroleum



RICHFIELD a leader in Western Petroleum Progress
OIL CORPORATION

Here's the word to describe Chicago:

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Industrial Unions Tighten Ranks

● AFL-CIO's multimillionaire Industrial Union Dept. is expanding into a "service center."

● Its goal is to create a united front, thereby give its small affiliated unions maximum bargaining strength.

● Its experts will supply strategy and negotiating aid, and help out with strike funds, if necessary.

A tighter, tougher bargaining alliance of industrial unions will be set up formally next week through a broadening of the original concept of the AFL-CIO Industrial Union Dept. headed by Walter P. Reuther. Many employers will feel the impact, through more concerted opposition, when they go into wage bargaining in 1958.

Organized in 1955, IUD will hold its first convention in Washington, opening Oct. 31. The big business on its agenda will be to transform itself from just a clearinghouse of labor information into an important "service center" to supply strategy and negotiating aid to its 71 affiliated unions—and to help out with strike funds if necessary.

• **Progress**—This is a step forward from the original conception of the department, although the difference lies largely in how an initial statement of purpose will be interpreted. Two years ago, IUD pledged to "aid and assist affiliates in securing improved wages, hours, and working conditions"—but without spelling out how it would do it, except through research work and as a "clearinghouse for the exchange of information and experience." From now on, the help is going to take more practical form.

The first steps toward that end will be an expansion of the IUD staff of 10, to add more researchers, technicians, including an industrial engineer, public relations advisers, and other specialists able to help unions with negotiating problems.

Other AFL-CIO departments offer their affiliated unions the services of staff experts for direct bargaining with employers—as intermediaries. IUD does not plan to go that far. Its staff will only:

- Advise affiliated industrial unions on how to bargain on pensions, health and welfare programs, supplementary unemployment benefits plans, and any other new or specialized "fringe" issues.

- Coordinate the bargaining programs of unions that deal with a single employer or that operate in one industry, and help map out a joint

approach—if not uniform demands. • Assist any union or group of unions with strike strategy, supply public relations help in placing the unions' cause before the public, mobilize union support for a walkout—and, under some circumstances, help financially with the cost of a strike.

• **Double-Barreled Goal**—The object is to give the smaller industrial unions maximum strength against employers, and to build up a new solidarity among the separate unions that bargain with an employer in an industry.

Two former CIO unions will have an important influence on the thinking—and planning—of the new bargaining alliance: Reuther's United Auto Workers and the United Steelworkers. Both UAW and USW have pioneered in new "fringe" areas. And, as frontrunner for 1958 negotiations, the auto union is already influencing other unions with its demands for a sizable wage increase and a shorter work week (page 155).

• **Closer Ties**—When IUD was established, the wariness of the relationship between former CIO and AFL unions got in the way of a more extensive program for the new department. Since then, the suspicions have dulled considerably. IUD unions have been drawing closer together, and telling bargaining secrets to each other. For example, four unions that bargain with one company, American Brake Shoe Co., held meetings some time ago to trade information on their experiences and to explore ways of coordinating their bargaining programs.

The four unions are the UAW and USW and, from the former AFL, the International Assn. of Machinists and the Moulders & Foundry Workers. They reported "productive" sessions in which they exchanged data on the firm's profits, its markets, its general financial position, and a wide range of detailed information on wage scales, pension and welfare programs.

Similar meetings have been held involving employers in a number of industries. The success has prompted

IUD to expand its program to permit a more active role in bargaining.

While it will not be proposed next week, the eventual hope is for a solid—if informal—front of industrial unions facing executives at the bargaining table.

• **Significance**—The two-day convention of 400 delegates from IUD unions will be closely watched for other reasons:

- Leaders of the old CIO bloc of unions are outspoken in their demands for a thorough-going cleanup of racketeering and corruption wherever they exist in AFL-CIO. The issue is sure to come up at the IUD assembly, which is expected to demand the expulsion of the Teamsters from the federation if the truckers' union does not comply fully with AFL-CIO codes of ethics. IUD some time ago kicked out the Teamsters as a department member on another ground: IBT was paying per capita dues to IUD on only a token 20,000 members and IUD officers insisted that the Teamsters must pay on 400,000—or get out.

- IUD reportedly is impatient with the lack of progress in resolving the years-old jurisdictional feud between industrial and crafts unions—the latter represented by the AFL-CIO Building & Construction Trades Dept. Since this is such a critical issue that it could split the federation wide open, departmental leaders are maneuvering to curb industrial unionists who want to force a showdown. Whether they succeed will be important.

- The convention will give Reuther a soundingboard for his social and political views, less frequently heard now that he is an AFL-CIO vice-president overshadowed—for the present, at least—by the federation's president, George Meany. It's likely that Reuther's words will be another clue to UAW's plans for 1958.

With the auto union preparing for auto negotiations, the Reuther-led IUD convention comes at a propitious time. Any tactical or even emotional support from other industrial unions will be welcomed by UAW. The union will bid for this next week, perhaps indirectly, through arguments for shorter work-week demands by all labor.

• **Union Guardian**—For almost two years, IUD has sponsored conferences, issued research reports, and otherwise been active. But, it has never been a really vital force. It has been, primarily, a guardian of the interests of industrial unions and a rallying center for the old CIO bloc of unions.

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president of the International Union of Electrical Workers and former secretary-treasurer of CIO, leading it, IUD has been, as one federation leader put it, "a sleeping giant," with more money in its treasury than AFL-CIO itself and with vast potential power.

IUD's bank account now contains "well over \$3-million," since it has been limited in expenditures in the past to "clearinghouse" functions. Its 71 affiliates pay 2¢ a month per capita to the department on 7.1-million members, giving IUD more than \$140,000 a month as income.

AFL-CIO assets now total about \$8-

million, but these include buildings. The federation's spendable funds are low, and it faces a probable 10% cut in income when and if the International Brotherhood of Teamsters is expelled on ethical charges. AFL-CIO's budget is already being reduced (BW—Oct. 19 '57, p163). Unless its per capita goes up this December, many activities may have to be sharply curtailed.

While IUD does not necessarily plan to take over any of the activities being curtailed by the parent federation, it counts on its stepped-up activities to give it new prestige and possible influence in AFL-CIO at a critical time.

Cost of Living: What's Happening to It

	Total Cost of Living	1947-49 = 100		
		Food	Clothing	Housing
September, 1949	102.1	101.1	97.9	103.2
September, 1950	104.4	104.0	99.2	107.1
September, 1951	111.6	112.5	109.3	112.9
September, 1952	114.1	115.4	105.8	114.8
September, 1953	115.2	113.8	105.3	118.4
September, 1954	114.7	112.4	104.3	119.5
September, 1955	114.9	111.6	104.6	120.4
September, 1956	117.1	113.1	106.5	122.5
October	117.7	113.1	106.8	122.8
November	117.8	112.9	107.0	123.0
December	118.0	112.9	107.0	123.5
January	118.2	112.8	106.4	123.8
February, 1957	118.7	113.6	106.1	124.5
March	118.9	113.2	106.8	124.9
April	119.3	113.8	106.5	125.2
May	119.6	114.6	106.5	125.3
June	120.2	116.2	106.6	125.5
July	120.8	117.4	106.5	125.5
August	121.0	117.9	106.6	125.7
Sept. 1957	121.1	117.0	107.3	126.3
				135.7

Data: Dept. of Labor, Bureau of Labor Statistics.

BUSINESS WEEK

C-of-L Boosts a Million Wages

The Labor Dept.'s monthly consumer price index crept up again in mid-September, to another new high of 121.1% of 1947-49 average prices. The advance assures more than a million workers of up to 4¢ raises in their next paychecks, under "escalator" contracts that tie wages to the rise and fall of living costs.

Most of the raises will go to railroad workers, who will be due 4¢ an hour more in semi-annual wage adjustments. The index rise for the five months through August accounted for the full amount of the increase; the further gain in September only made it more secure.

Another million workers have wage adjustments coming up next month.

Even a fractional rise reflected in the mid-October index will mean a penny more into auto, aircraft, and other paychecks in December. But, government economists, a little surprised by the current rise, have issued a mildly optimistic prediction that prices may now level off or decline slightly.

Food prices dropped during the month that ended in mid-September. Offsetting rises in housing, apparel, personal services, and other costs kept the index from turning down for the first time in more than a year.

The present upswing of the cost-of-living index began in March, 1956. Since then, the index has dipped only once. END

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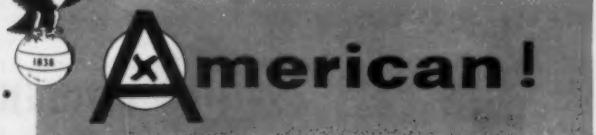
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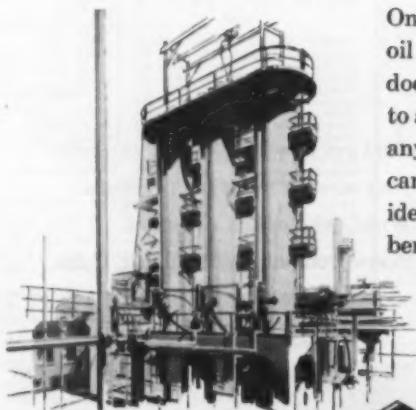


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UAW Concentrates on Wages

As the auto industry and Reuther's union warm up for negotiations, the shorter work week has been sidetracked. Now the talk is all whether wage pressures cause inflation.

Bit by bit, the major area of conflict between the United Auto Workers and the automobile industry in next year's contract negotiations is being narrowed down simply to wages. Of course, the situation can, and may, change in several different ways between now and next spring. But this week the trend-setting issue of the shorter work week had been lost in the running fight over whether wages push up prices or vice versa.

That fight was being carried on at full cry in Detroit last week as the UAW National Ford Council met, as UAW's Pres. Walter Reuther spoke before a chemical workers' convention, and as the union answered an earlier speech by a Ford vice-president.

• **Union's Hue . . .** —All through, the emphasis was on wages, prices, and profits. Possibly the best reason why the shorter work week issue has disappeared (at least temporarily) was summed up by Reuther before the chemical workers:

"There is a concerted campaign of distortion to make the American people believe inflation comes from higher wages . . . Did prices [of cars] go up because of wages? Not! Prices went up because the companies arbitrarily rigged prices for profits," Reuther said.

In other words, in this early stage of pre-negotiation give-and-take, UAW is defending a position forced on it by the opposition. The auto companies have decided to pin the onus for higher prices on UAW, which is where they feel it belongs. To have any sort of public standing to ask higher wages, the UAW first has to get out from under that charge.

• . . . **Management Cry**—Another plank in what Reuther called "this poison propaganda campaign" was laid by T. O. Yntema, Ford vice-president for finance, in a speech in Chicago.

"We are confronted," he said, "with the kind of inflation that has been of greatest concern to economists—cost-push inflation. This kind of inflation has its roots primarily in the monopoly power of unions to force wages up even though there is no shortage of labor, and insufficient increase in productivity to absorb and offset the wage increase . . . In recent years the impetus for higher prices has come mainly from increased costs caused by higher wages."

Yntema added later in his speech: "Some say it is the responsibility of business to contain the demands of

labor. This will not be possible until the excessive power of labor is reduced. The most desirable solution to the labor monopoly problem and wage inflation will, I believe, be found in the development of anti-monopoly laws comparable to those that govern business."

• **Retort**—Naturally, UAW slapped back at Yntema and spotlighted the real significance of the speech, although in its own special brand of wording: "The call by Mr. Yntema . . . should be viewed as merely another move in big industry's campaign to divert attention from its extortionate pricing policies which have been the real cause of the present inflation."

What UAW was saying is that Yntema never would have made such a speech now but for the industry's decision to battle publicly against wage increases, since Yntema has held the view he expressed for several years.

In October, 1955, at a Ford news conference, in response to a question

about price increases on the 1956 cars then being introduced, Yntema said: "The wage rate this year is way out in front for the economy, and the inevitable consequence of that is a higher inflation, and that, inevitably, leads to higher prices." But at that time, his words got little attention.

• **No Rosebed**—It was his awareness of the industry's stiff opposition to wage increases that undoubtedly was in Reuther's mind last week as he told the Ford council delegates that in 1958 the "collective bargaining road is not strewn with roses."

And again, as he has so much lately, Reuther went after the "administered" price structure in the automobile industry. "We're in trouble here in America because the great and powerful corporations can dictate price structures totally unrelated to the economic laws of supply and demand," Reuther told the conference. He still did not indicate what "Step Three" might be in his campaign for wage increases without price increases—Step One was asking the companies to cut 1958 car prices \$100; and Step Two was asking for a Presidential board of inquiry. Most likely, it will be linked with the "administered" pricing.

URW Is Decertified at Plant

In accordance with Taft-Hartley, strikers were barred from balloting. Now, a new fight against T-H is brewing.

Employees of the O'Sullivan Rubber Corp. plant in Winchester, Va., voted last week to decertify the striking United Rubber Workers as bargaining agent—but URW plans to continue picketing the plant and will not drop its boycott of the corporation.

URW struck O'Sullivan in May, 1956, when wage bargaining deadlocked. More than 400 workers represented by the union walked out. Some returned to their jobs later, and in August, 1956, the plant was back in full production.

• **Rejection**—The AFL-CIO rubber union won bargaining rights for the plant just before the strike began 18 months ago. Under the Taft-Hartley Act, decertification proceedings are legal a year after a union-won election. Newly hired employees petitioned for a vote, and rejected URW 288 to 5 in a National Labor Relations Board election. Strikers couldn't vote.

URW criticized the decertification as a "down to earth example of how the Taft-Hartley Act can take away the bread and butter from a working-

man's family." It complained that the economic strikers—some of them with as much as 30 years of service in the plant—were barred by law from the balloting although, the union protested, "no group was more concerned with the outcome."

The voting was held at polls within the plant, and the result was "as expected," URW said.

• **Rallying Point**—The decertification vote has already become a cause celebre for a new labor fight against the Taft-Hartley Act. The AFL-CIO News last weekend called the setback for URW "one of the most dramatic examples" of the way the 11-year-old act can be used for "crushing" a union. New demands for T-H revision will follow.

The fight will center particularly against the controversial Sec. 9 (c) (3) of the law, which now reads: "Employees on strike who are not entitled to reinstatement shall not be eligible to vote." This applies to those striking for economic gains; if replaced by their employers, they have no reinstatement rights. **END**



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Unification

AFL-CIO is quietly cutting the number of locals it directly controls. It's merging them into its big unions.

One of AFL-CIO's long-range goals is a consolidation of union membership. It hopes to eliminate overlapping jurisdictions and to strengthen ranks by bringing all workers with similar interests into one potent union—rather than having an assortment of smaller, weaker bodies.

This will take time, if it can ever be accomplished under conditions of jealous rivalry. However, federation officers are making a start among the AFL-CIO controlled federal labor unions (BW—Aug. 10 '57, p122). Over the past two years, working quietly, AFL-CIO officers have turned over more than 300 of the federal locals—with a total membership exceeding 50,000—to the affiliated internationals.

- **Directly Chartered**—The federal locals belong solely to the AFL-CIO and are chartered by it. They operate under the authority of Pres. George Meany and remain separate from the internationals until they vote to join—or are assigned to—one of the 140 affiliates of AFL-CIO.

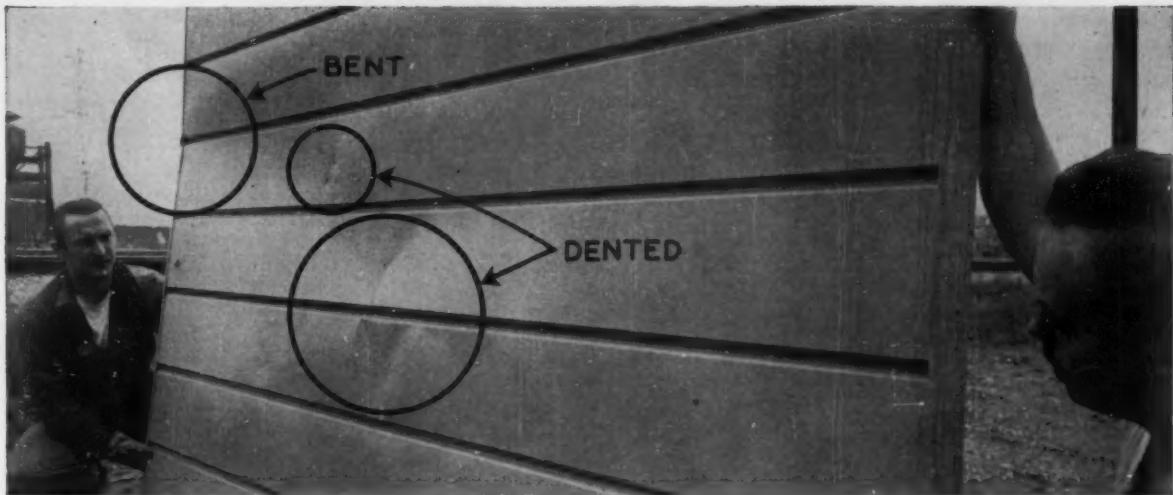
Right now, the federation directly controls 621 federal labor unions with some 150,000 members. At the time of the AFL-CIO merger, in December, 1955, the AFL had 808 federal bodies, the CIO about 150. Since then, the number has diminished week by week as the AFL-CIO locals have been absorbed by the various internationals.

- **Merger Effect**—Mainly, this has been a continuing result of the merger. While rivals, the AFL and CIO chartered locals for workers wherever they did not have an appropriate international to compete with a union in the other federation. For instance, AFL set up a number of locals for newswriters who didn't want to join the CIO's American Newspaper Guild.

Since the merger, many of these federal locals have been turned over to the appropriate internationals.

This has accounted for most of the cut in the total number of federal labor unions, but there's a sizable group that will always exist. Some local unions simply have no internationals to go to. For instance, among the current 621 locals are isolated groups of suspender workers, sightseeing guides, and so on.

Where a number of locals in the same area are organized, the AFL-CIO can grant them an international charter as an autonomous union. **END**



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Court Takes Up Hoffa's Fate

Judge orders hearings on the legality of convention that elected Hoffa Teamsters president. Meanwhile, he can't assume new post—and AFL-CIO can't suspend union.

Decisions from the federal courts may postpone—or even prevent—a final split between AFL-CIO and the International Brotherhood of Teamsters.

This week, District Court Judge F. Dickinson Letts in Washington temporarily voided the election of James R. Hoffa to be Teamsters president—and at the same time prevented AFL-CIO suspension of the truckers' union. While AFL-CIO officials are unhappy about having to suspend the Teamsters, they also are unhappy about what they consider to be judicial invasion of labor's private business.

But, whatever preliminary steps taken by the AFL-CIO Executive Council, they remain unsettled until Hoffa's fate is decided in Letts' courtroom.

The new challenge to Hoffa is a court test of the legality of the Teamsters convention that overwhelmingly chose him as president. A court hearing will be held to determine whether the convention delegates were properly chosen and whether a new convention is necessary.

- **The Choices**—While the final showdown is delayed by the newest anti-Hoffa legal maneuver on the part of 13 rank-and-file union members, the choice at this point remains the same:

- If Hoffa survives the court test and assumes the president's office, the trucking union will be expelled from AFL-CIO. Only a lengthy delay in deciding Hoffa's fate and a substantial shift in sentiment could alter this—a highly unlikely development.

- Expulsion of the Teamsters could be prevented if Hoffa, or his hand-picked choice, does not take over as head of the Teamsters. This is even more unlikely, even if a new convention is ordered by Judge Letts.

Along with the new threat of a canceled election, Hoffa also faces two other court trials involving charges of wiretapping and perjury. The outcome of these two trials becomes more important if there's any long delay—because of a new vote or some other reason—in Hoffa's assuming office.

- **Second Affirmation**—The preliminary injunction issued by Judge Letts barring Hoffa from office was his second affirmation of the position of the 13 Teamsters who prior to the convention were granted an order delaying the proceedings. However, in the earlier decision, Judge Letts was overruled by the Court of Appeals.

The new hearings ordered by the 82-year-old judge must be completed before Hoffa can assume office. Presumably, this could be before Dec. 1—the date he was formally due to take over before deciding to step in earlier.

Godfrey Schmidt, attorney for the opposition 13, argued that the court should appoint an overseer to run the union until a new convention could be held. Among other duties, the master would supervise all major decisions by the union, watch over its financial affairs, and act as a "channel to whom aggrieved members can appeal." Teamsters attorneys argued that such a step would hamper normal union operations. Judge Letts refused to name a master, in effect ruling on Wednesday to let the retiring Dave Beck keep the union helm until the normal expiration of his term.

- **Rival Arguments**—The hearing before Judge Letts will be based on these rival arguments that were fully brought out before Letts enjoined Hoffa from taking office:

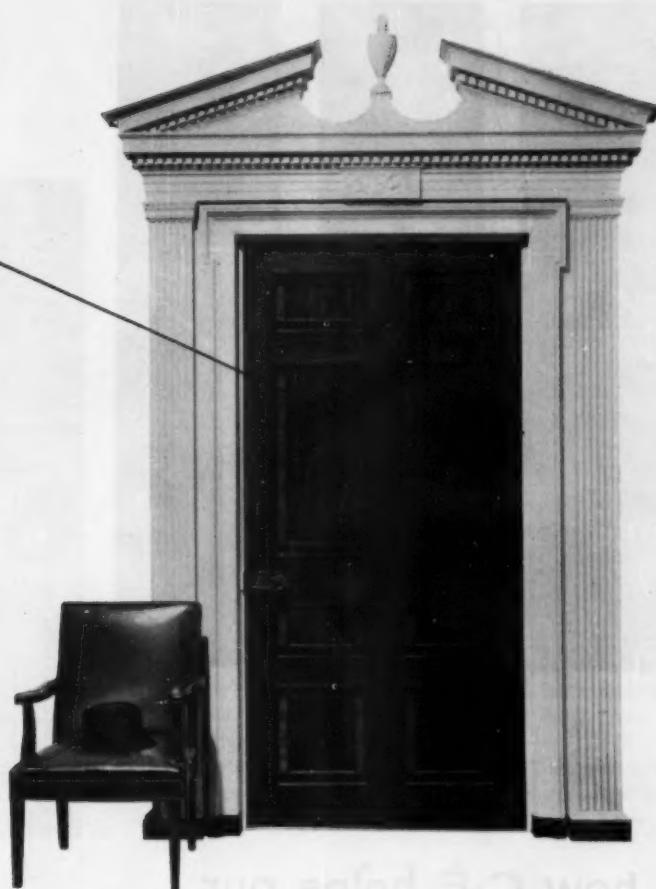
- The 13 Teamsters complainants are challenging the selection of 606 delegates to the Teamsters convention, arguing that they were not selected according to the rules of the Teamsters constitution. It was a "stacked" convention, they say.

- The Hoffa forces argue that all delegates were properly chosen even though they weren't picked in the prescribed time period set by the constitution. Their argument is that the formality of selection dates is less important than the fact that the delegates were all approved in local union meetings.

Two days of arguments before Judge Letts on the writ barring Hoffa from the IBT presidency, hinged around interpretation of the Teamsters constitution. When Letts granted his preliminary injunction, he pointedly noted that it does not indicate how he would rule after the hearings.

- **Succinct Comment**—Teamsters Secy-Treas. John English, a Teamsters official for 45 years, submitted an affidavit to the court stating that the convention had followed the same rules as those he had attended since 1912. His most succinct statement was that no matter how many Teamsters conventions are held or under what rules, the outcome will be the same. **END**

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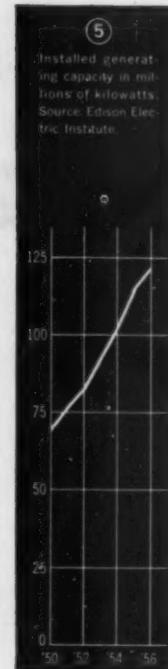
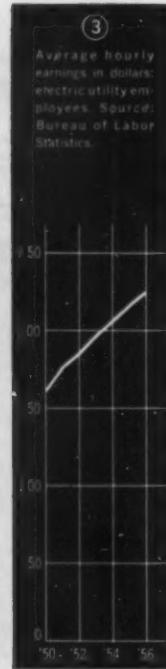
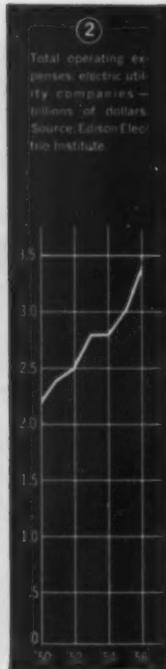
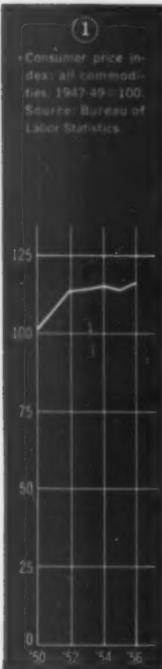
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The electric utility industry's cost of living is rising too . . . at an even greater rate. Its total operating costs, in fact, have risen more than 50% since 1950—Graph 2. Part of this, of course, reflects industry growth, but another large part is due to inflation—the higher cost of doing business all along the line. Utility labor costs, for example, have continued to rise at a steady pace . . . about 6.3% a year—Graph 3.

Yet the average price paid for a kilowatt-hour the country over—Graph 4—has continued to go down in the face of both inflated operating costs and enormous capital expenditures. The total capacity of utility generating plants has increased about 75% in the past six years—Graph 5—representing a capital investment of 11½ billion dollars.

What's holding down that cost-per-kw-hr curve? Ever-increasing usage of electricity is part of the answer, but a more significant reason has been the continuing effort of the utility industry and its suppliers to develop new and improved designs of equipment . . . that would generate power more efficiently and economically. The last graph—Graph 6—shows how these advances have reduced the average rate of fuel consumption per kw-hr from 1.19 to .94 pounds

(21%) in the past six years. But this is the average for the whole industry. A plant is now being built (boiler by C-E) that will produce a kw-hr for about .6 lb of coal—36% below the 1956 industry average.

Combustion Engineering is proud to have made major contributions to this progress. C-E has pioneered in such great advances in power generation as higher steam pressures and temperatures, reheat, controlled circulation, tangential firing—and is today installing the "supercritical pressure" boiler referred to above . . . an installation that is expected to set a new efficiency record—the next landmark on the road of power progress.

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In Labor

Steelworkers Suit in Ohio Seeks To Clarify State's SUB Situation

The United Steelworkers has filed a suit aimed at clarifying the supplemental unemployment benefit question in Ohio. The court action opened what is likely to be lengthy litigation (BW—Sep. 14 '57, p176). It was filed against four major steel companies—U.S. Steel, Republic, Youngstown Sheet & Tube, and Jones & Laughlin, the administrator of the Ohio Bureau of Unemployment Compensation, and three key administrative employees of the BUC Youngstown office.

The suit, filed under the declaratory judgment law of Ohio, asks the court to determine the rights, status, and obligations of the parties in respect to the Ohio unemployment compensation law and SUB agreements covering steelworkers employed by the companies.

The suit also asks the court to enjoin Ohio BUC Administrator James B. Tichenor and his employees from continuing to prevent the integration of private and state benefits under SUB contracts in Ohio.

Michigan Studying Possible Link Between Automation, Unemployment

A study was under way this week in Michigan on whether automation was responsible for any of the state's current unemployment—and, if so, what could be done about it.

Undertaking the analysis is an 11-member commission appointed by Gov. G. Mennen Williams, with one representative from the state government, five from industry, and five from labor. Commission Chmn. Edward Cushman, a vice-president of American Motors, said the group would call on Michigan State University, Wayne State University (in Detroit), and the University of Michigan for assistance in the project.

The study will not be confined to automation; the commission will look into all forms of mechanization in industry. It will also recommend what information should be gathered for either administrative or legislative action, if such action is indicated.

Seafaring Unions Bow to Court Order And Bull Line Ships Go Back to Sea

A Federal Court injunction this week ended for the time being the 64-day strike at Bull Steamship Line by three seafaring unions (BW—Aug. 17 '57, p142). Maritime officers' picket lines were withdrawn, and the company expected to resume its East Coast and Caribbean runs shortly.

The three unions involved—Seafarers' International

Union, International Organization of Masters, Mates & Pilots, and Marine Engineers Beneficial Assn.—say the strike was over wages. The ship line argues that the walkout was a result of jurisdictional rivalry between the three unions and the National Maritime Union. The Seafarers actually started the strike on Aug. 19, but were enjoined Oct. 1. However, they were not obliged to cross picket lines maintained by the deck and engine officers.

A union spokesman said at midweek that the pickets had been removed in compliance with the court orders. But the pickets may be back again if pending union appeals are granted.

Dam Builders Claim Carpenters' "Slowdown" Cost a Half-Million in Damages

Contractors working on the Ice Harbor Dam in Washington are suing Carpenters units on the West Coast for \$514,200 in damages, to recover losses suffered, they allege, as a result of two work stoppages at the site.

The suit brought under the Taft-Hartley Act complains that the union unlawfully encouraged workers on the dam project to engage in work stoppages in order to force the reassignment of riggers' work to members of Carpenters Local 1849. Contractors had given the assignment to an Ironworkers local.

The contractors report "considerable interest" nationally in their right to hold the Carpenters accountable for losses resulting from a judicial dispute.

Senate Investigators Turn a Beady Eye On Alleged Malpractices of Management

The Senate Select Committee turned its attention this week to activities of a management consultant, Nathan W. Shefferman. Before it ends an expected two weeks of hearings, the committee headed by Sen. John L. McClellan (D-Ark.) expects to probe into about a dozen cases involving alleged employer malpractices.

At the opening session Tuesday, McClellan noted that along with restrictions on labor, the Taft-Hartley Act imposes restrictions on management practices.

"These hearings will attempt to learn whether or not there has been a deliberate and calculated effort to circumvent and defeat these provisions on behalf of management," McClellan explained.

First witnesses testified that Shefferman's firm, Labor Relations Associates, Chicago, was retained by Morton Packing Co., Webster City, Iowa, to help it resist an organizing campaign by the United Packinghouse Workers.

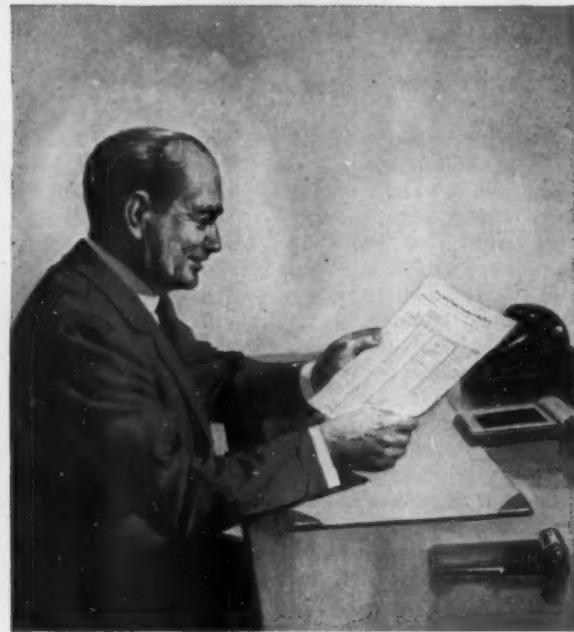
According to the testimony, a Shefferman agent promoted a "spontaneous" anti-union movement that defeated URW. A little later, Morton recognized the Bakery Confectionery Workers as bargaining agent, without an election and with the counsel of another Shefferman aide.

The second union signed a "soft" contract with the company, witnesses testified.

CHECK COLLECTIONS



FLOAT TIME: 2 TO 4 DAYS This treasurer receives large volume of remittance checks . . . processes and deposits the items . . . waits for clearance.



FLOAT TIME: 1 TO 2 DAYS This treasurer uses Guaranty Regional Clearing Plan . . . gets daily summary of items . . . saves handling and "float" time.

Treasurers Cut Check "Float" with Guaranty Regional Clearing Plan

Every treasurer is well acquainted with the many problems connected with handling customer remittances by conventional methods.

One of the big problems, of course, is the monthly peak load periods which develop, involving a race against time to process and deposit checks. In many companies, clerical overtime is the rule rather than the exception.

And, because anywhere from 2 to 4 days of "float" must be reckoned with, the treasurer must wait that long to learn of dishonored checks or weak credit situations.

But perhaps the most serious drawback of conventional collection methods is simply that funds in transit are not available funds.

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1. **A saving of one or more days "float" time for customer remittances.** Customers in

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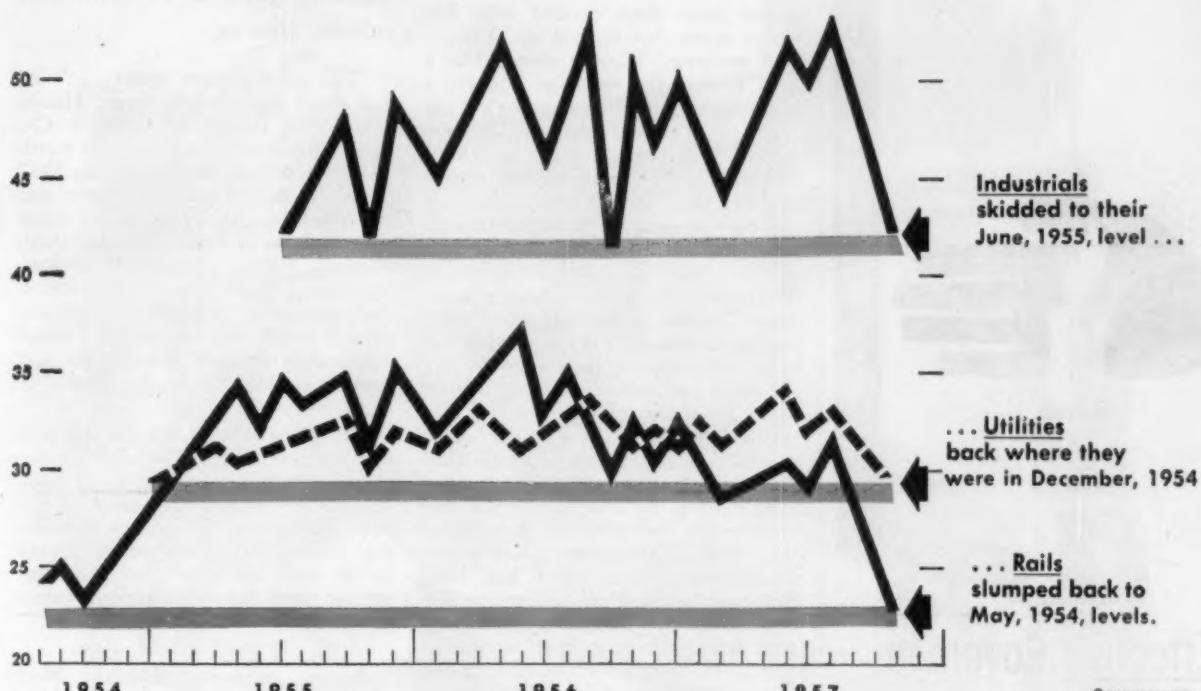
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THE MARKETS

The Market—At This Week's Climax

Standard & Poor's Daily Stock Price Averages (1947-48 = 10)

55 —



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Was It a Real Bottom?

The postwar bull market has been dead for a year. But the powerful rally at midweek leaves the question: Was this a genuine turning point upward, or just a technical recovery?

These charts—showing the state of the market at Tuesday's close—prove one thing: The historic postwar bull market died over a year ago.

Moreover, Monday's hectic selling followed by Tuesday's tumultuous churning constituted a classic "selling climax"—huge trading volume that sees selling finally run its course at least for the time being. And Wednesday's headlong rally was, in its turn, the classic consequence of a selling climax. It was the sharpest one-day rise in the market since Nov. 14, 1929.

But one question remained unanswered: Was the midweek rally really the turning point, or was it just a technical recovery after a sweeping decline?

• **Deluge**—On Monday, traders and investors started to unload, with little discrimination or finesse, as soon as the market opened. Such selling continued

heavy throughout the day; volume jumped to almost 4.7-million shares, the biggest daily total since the September, 1955, "heart attack" price break. Under the impact of such liquidating pressures, stock prices melted like salt during a rainy spell. Some statisticians figure that upwards of \$6-billion of paper values went down the drain.

On Tuesday, market prices again were on the toboggan, with even greater trading volume—some 5.1-million shares, the third largest reported since the fall of 1937. The quotation ticker was late in reporting floor transactions for two hours and 17 minutes of the 5½-hour trading session. Selling orders made up much of this volume, and Streeters reported that another \$2-billion or so had been clipped from Big Board values.

At the close of business on Tuesday, the market presented this picture, ac-

cording to Standard & Poor's comprehensive daily stock price indexes:

Industrials had dropped 21% under their bull market high, back to the levels of June, 1955.

Rails were off 39%, retreating to their level of May, 1954.

Utilities, despite their reputation as good defensive holdings, were off 15%, and back at their December, 1954, figure.

Despite all this carnage, Wall Street found some definitely encouraging signs for the near term in Tuesday's trading. Losses were much less steep than on Monday, while various technical signs indicated that the market generally had finally become oversold and was about to launch a technical rally that—if history proves anything—might well wipe out a great deal of the recent losses.

• **On Page One**—One cheering sign was of a non-technical nature: the action of the New York Times in starting its daily stock market story on the front page instead of in the financial section. It was the first time this newspaper had so honored the



The Anatomy of EFFECTIVE Group Insurance

Effective Coverage

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present "bear" market. And it's an old Street adage that the worst is usually over when a market decline becomes serious enough to break onto the front page. Traders who "read the tape" optimistically got confirmation on Wednesday. Most brokers found their shops flooded with buy orders when they opened up Wednesday morning. Trading started like a ball of fire; the tape ran late for a long time. And the morning's "late tape" wasn't the only one. As the day wore on, buying orders continued to flood in, till lateness became normal for the tape, instead of a freak.

This was fine, but Wall Street men, investors, and traders alike found even greater cheer in another aspect of Wednesday's business. Liberal gains in prices became noticeable soon after trading started. What's more they became wider-spread and larger as the day wore on, instead of being shaved down by profit taking.

- **What Did It?**—Much of the initial impetus on the upside was furnished by a substantial number of buying orders put in by traders who had sold short earlier, and were moved by Tuesday's show of strength to cash in on the liberal paper profits that had been building up in their accounts. But brokers say that institutional investors were taking an even more prominent part in the buying by midweek. Since they generally engage in dollar averaging, few of these investment companies, pension funds, and banks handling trust accounts had been wholly out of the buying side since the decline in prices began in mid-July. But Wall Street feels their activity had been slowed very visibly; and they had been sitting back accumulating cash reserves and waiting for just such a time to put their money back to work.

- **The Public, Too**—The general public, too, had a part in Wednesday's rally, for a huge number of investors and traders follow the lead of the professional money managers whenever they can.

- **Behind the Rise**—At the close of Big Board proceedings at midweek Streeters generally were of the opinion that the "good" character of the buying on Tuesday and Wednesday indicated that the rally stood an excellent chance of proving of greater depth and duration than the two- to three-day parties that had earlier punctuated the extended and sharp drop.

There's also a feeling in Wall Street that Washington is moving toward basic changes in policies that have been slowing down business.

The Street interpreted Pres. Eisenhower's remarks at midweek to mean that Washington would soon ease up on both cutting defense spending and on tight money.

Wall St. Talks . . .

... about market losses
... tax-selling . . . a new financing gimmick . . . rail and missile shares.

"The moving finger writes . . ." At one point early in the week, Harold Clayton of Hemphill, Noyes & Co. figured Big Board commons were worth about \$60-billion less than at their 1957 highs. With that sum, he reports, you could have bought all outstanding shares of American Tel & Tel, du Pont, General Electric, General Motors, Standard Oil of New Jersey, Union Carbide, and U. S. Steel—and still have enough money left over to buy also all outstanding stock of the 600 smallest companies listed on the Big Board.

Tax-selling is heavy and will stay that way for several weeks, market technicians say. Particular targets of such selling, they warn, will be many of the stock market's recent weakest performers. Among that group you can expect to see wild individual price gyrations entirely unrelated to the intrinsic values of the stocks.

A new financing gimmick: Next month, Transcontinental Gas Pipe Line Corp. will publicly offer \$20-million of new debentures along with 1-million shares of new common stock. To make the stock more salable, Transcontinental announces that buyers of the new shares will be entitled to collect a 10% stock dividend which the directors have just declared for December.

The sharp erosion of rail earnings was conspicuous in this week's financial pages. Illinois Central, which hiked its payments to stockholders just a year ago, announced a cut from \$1 to 75¢ in its quarterly dividend. The road anticipates a 31% drop in 1957 earnings. . . . After January-September net had slid 37% below the 1956 level, directors of Pennsy decided to postpone consideration of a fourth-quarter dividend until their November meeting. Pennsy customarily announces its action in October.

Unguided missiles? "With guessing playing such a prominent role in their recent market action, missile issues have become more volatile than ever," warns Standard & Poor's, advising clients against "reaching for them at present advanced levels." Postpone any such purchases, says S&P, "until there is a sounder basis for evaluating shifts in defense and monetary policies."



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No place here for the tiniest flaw in a single weld! So the magic of radiography was called on to make sure. Two-and-a-half miles

of x-ray film hold proof that every seam showed itself flaw-free and secure.

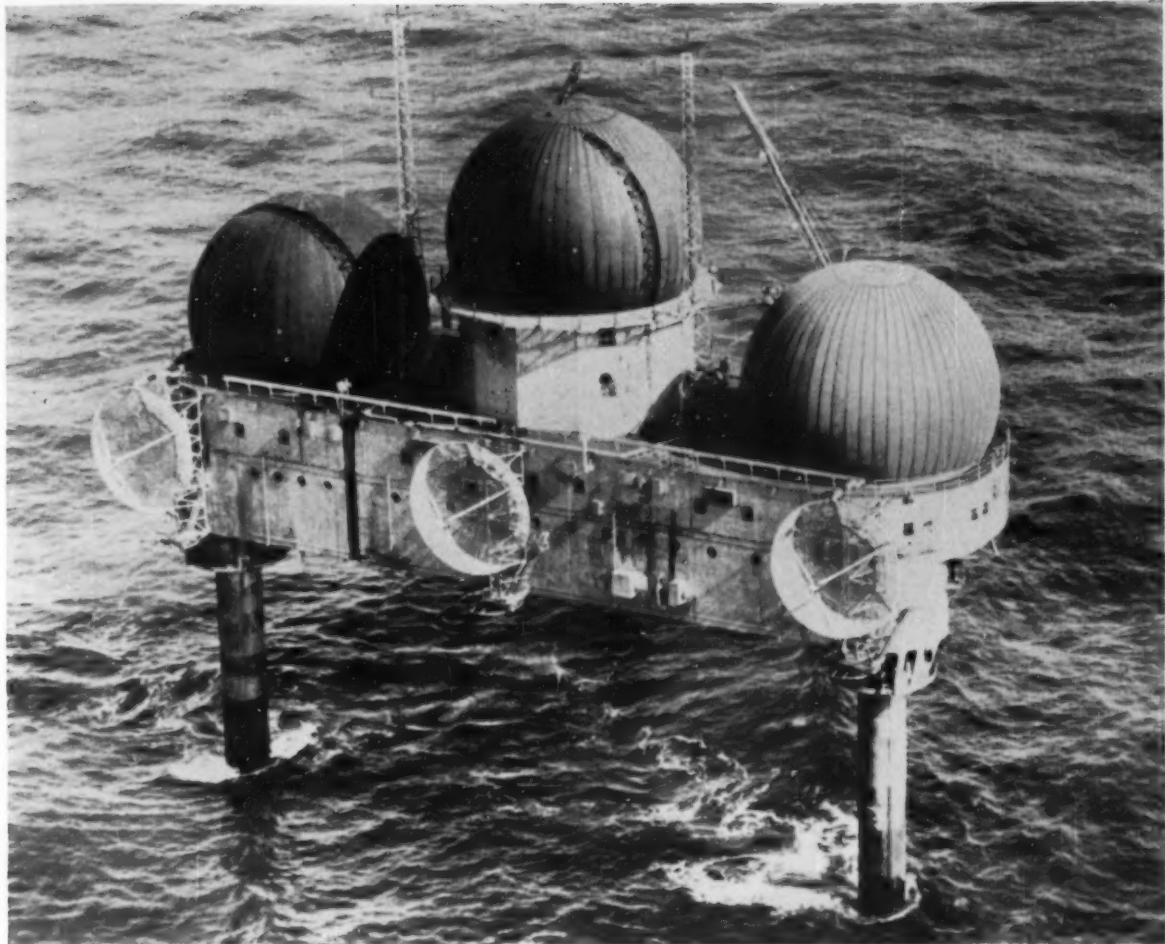
Every day radiography is working like this for welders, large and small—for foundries interested in sound castings—for any manufacturer who must know internal conditions of a product without destroying it. It is one example of the many ways photo-

graphic processes work for business and industry—how it helps make better products and improve manufacturing procedures.

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One of America's offshore radar warning towers—Texas Tower III—built by Walsh Holyoke Division, Continental Copper and Steel Industries, Inc.

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PERSONAL BUSINESS

BUSINESS WEEK
OCT. 26, 1957



In lining up an overseas trip for a fraternal, civic, or business group—with a limited budget to work on—you may want to check up on international air charters. Now is the time to make plans for a charter flight next summer, June through August—and it's still not too late to book an Atlantic crossing for a trip this winter.

The big advantage of such charter flights is that they are roughly 40% cheaper than the standard tourist-class fare on regular scheduled runs. To get a charter contract, there are just two basic requirements you'll have to meet:

• Your group must be a "bona fide" organization—not just a group gotten together for the purpose of chartering a plane. (Flight application has to clear the Civil Aeronautics Board in Washington; if CAB decides that yours is not a bona fide organization, the charter will be disapproved. Indication is that this rule may be tightened up in future months.)

• You will need enough people to fill (or nearly fill) a large four-engine aircraft. You pay for the entire space in the plane—52 to 114 seats, depending on the type plane—so the per person rate depends on the length of your passenger list.

Overseas charters have caught on fast in the last year or two, partly as an outgrowth of the domestic charter trade (BW—Mar. 2 '57, p153). Airlines expect their biggest season next year. Among the lines active in overseas charters—mainly flights between the U.S. and Europe—are Flying Tiger, Slick, Transocean, Seaboard & Western, all non-scheduled carriers, and Pan American, KLM Royal Dutch, BOAC, Sabena, and Air France of the regular carriers. (Some of the big lines steer clear of charter trade, partly because their equipment is tied up on regular scheduled runs.)

You can make arrangements direct or work through a travel agent, and let him worry about contacting an airline. As usual, the agent's commission will be paid by the carrier—there's no special fee involved. The airline will clear you through CAB, draw up the charter contract, etc.

Savings are sizable. You can book a summertime round-trip between New York and London, for example, for as low as \$300 per passenger—compared with around \$525 for comparable accommodations aboard a scheduled airliner. Unless some unusual arrangements are made, your group will pay nothing extra for lay-over time at your destination. By planning far enough in advance, you can arrange to "split" your flight—for example, your group could fly to Paris, tour Europe for two or three weeks, then fly back from Rome.

"Off season" winter rates (to Europe, at least) are lower than summer fares on some of the charter lines. A New York-to-London round-trip drops as low as \$270 in winter, as against the \$300 summertime fare. Christmas-season charters from New York to Rome, this winter, will come to around \$325 per passenger.

And as for winter travel south, there's some chartering available for Latin American (Caribbean) trips. So far, this trade is sparse—but check with your travel agent.

Accommodations and service on these charter flights, obviously, are not up to de luxe or even first-class standards. What you buy is comfortable, safe, tourist-class passage—minus the frills. (You will find stewardesses aboard, though, and hot meals.)

On most lines, you fly either a four-engine DC-6B, carrying 72 to 96 passengers, or a Lockheed Super Constellation, with room for 85 to 114

PERSONAL BUSINESS (Continued)

BUSINESS WEEK
OCT. 26, 1957

passengers (both with pressurized cabins). A few lines have used the older DC-4 (non-pressurized), with 52 to 68 aboard.

Charter flights are governed by the same rules as regular flights. Under the Warsaw Convention (to which the U. S. is a party), a passenger's heirs may collect no more than \$8,300 from the airline in case of a fatal accident. But you can get private coverage. An insurance package providing \$25,000 life and \$2,500 medical, and covering an entire 15-day trip (in the air and on the ground abroad), for example, costs about \$13.

—•—

The next time you attend a horse show (the National Horse Show in New York, Nov. 5-12, for instance), don't miss the Corinthian hunt class—it's one of the most colorful parts of the show. You'll have a better chance of choosing the winner, if you remember how the Corinthian is judged.

Performance, as in most classes, counts for a large share (60%-85%) of the total score. The jumps are set up to resemble actual conditions on a cross-country hunt: "in and out" (country lane), "post and rail" (country fence), "spread" (broadjump), a stone wall, chicken coop, and a small white gate. Each jump is scored separately and the horses must jump safely, keep an even hunting pace (good fast gallop), and be able to pull up short.

Appointments—a special feature of the Corinthian class—account for an additional 15% of the score. This will be tough for you to judge from the audience, because every small detail of the rider's habit and equipment is checked for correctness and polish. This can be the deciding factor—in case of a tie in performance.

Because riders are supposed to be prepared for any emergency that might occur on a hunt, they must carry a flask (usually filled with sherry or brandy) and a sandwich case attached to the saddle. Other details the judges check: velvet hunt cap (cork-lined for safety), long white stock tie (bandage or tourniquet), and large gold safety pin, a whip with a long thong (for mending the harness), breeches and high knee boots (protection from burns and chafing), and leather riding gloves with ribbed palms (to keep the reins from slipping).

—•—

In case you're planning to buy a farm for a summer home or for investment, don't expect the land to be yours for the asking. Real estate values in farms throughout the country jumped an average 8% during the year ending July 1, 1957, reports the Agriculture Dept.

This jump, largest increase since 1951, is due to: (1) generally favorable crop prospects as of mid-1957, (2) the tendency of existing farms to expand, (3) increased demand for poor-quality land—for deposit in the Soil Bank conservation reserve, and (4) the continued high trend toward use of farms for residential and industrial purposes.

The city buyer will also find that the number of farms for sale remains at the relatively low level of recent years. Latest yearly figures show sales down 3% from a year ago.

—•—

Tax diary: J. K. Lasser has come out with an idea to help businessmen keep track of travel and entertainment expenses in 1958.

It's a 7-in. by 9-in. hard-cover record book with a detailed page for each day in the year. Write to Business Reports, 2 East Ave., Larchmont, N. Y. (\$5.95).

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Helping sharpen the "brains" of memory machines

The constantly increasing trend towards automation requires memory machines that collect vast amounts of data. The "brains" of these amazing machines are centered in toroids—tiny, doughnut-shaped cores wound tightly with thousands of turns of wire. To wind these fantastically complex toroids with greater speed, accuracy and economy, a leading manufacturer of toroid winders, Boesch Mfg. Co., Danbury, Conn., selected U.S. PowerGrip "Timing"® Belts.

"Our engineers and 'U.S.' engineers," says the chief engineer of Boesch, Inc., "work hand in hand on our wind-up problems involving power transmission. Eventually, all our various winding machines will have PowerGrip drives."

U. S. PowerGrip "Timing" Belts have teeth which fit into grooves in the pulleys. This means positive, non-slip transmission of power, with efficiency close to 100%. PowerGrip needs no maintenance, no lubrication, is far more accurate handling drives from fractional to 1000 hp.

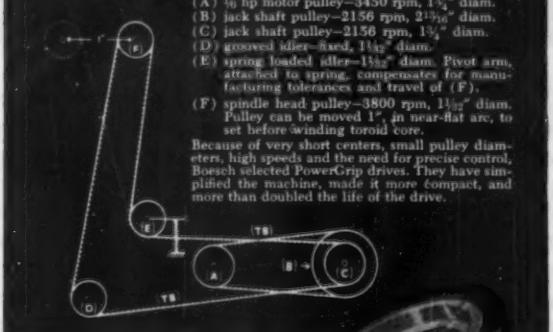
The complete line of PowerGrip drives—plus expert engineering assistance—is obtainable at any of the 28 "U.S." District Sales Offices, selected distributors, or write us at Rockefeller Center, New York 20, N. Y.

In Canada: Dominion Rubber Co., Ltd.

SCHEMATIC OF U. S. POWERGRIP "TIMING" BELT DRIVE
ON BOESCH TOROID WINDER (MODEL SM-C)

- (A) $\frac{1}{6}$ hp motor pulley—3450 rpm, $1\frac{3}{4}$ " diam.
- (B) jack shaft pulley—2156 rpm, $2\frac{3}{16}$ " diam.
- (C) jack shaft pulley—2156 rpm, $1\frac{3}{4}$ " diam.
- (D) grooved idler—fixed, $1\frac{1}{2}$ " diam.
- (E) spring loaded idler— $1\frac{1}{2}$ " diam. Pivot arm, attached to spring, compensates for manufacturing tolerances and travel of (F).
- (F) spindle head pulley—3800 rpm, $1\frac{1}{16}$ " diam. Pulley can be moved 15° in near-flat arc, to set before winding toroid core.

Because of very short centers, small pulley diameters, high speeds and the need for precise control, Boesch selected PowerGrip drives. They have simplified the machine, made it more compact, and more than doubled the life of the drive.



Mechanical Goods Division

United States Rubber

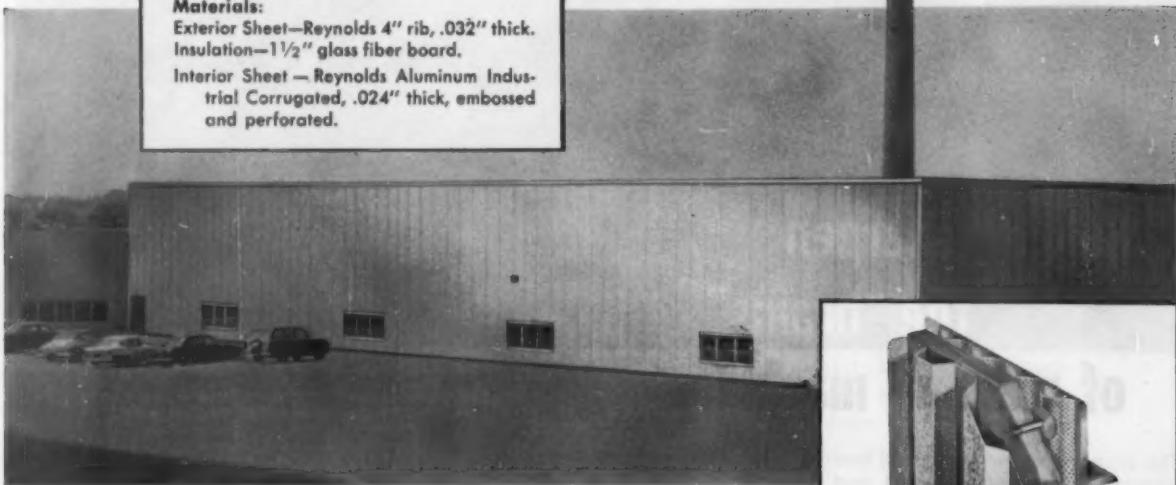
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**Another Maintenance-Saving
Installation by
American Can Company!**

Reyconowall.

**Reynolds Aluminum
Field Assembled
Curtain Wall System**

American Can Company
Coil Cutting Plant, Hillside, N. J.
Jobber-Erector:
Donovan Erection Company
Materials:
Exterior Sheet—Reynolds 4" rib, .032" thick.
Insulation—1½" glass fiber board.
Interior Sheet—Reynolds Aluminum Industrial Corrugated, .024" thick, embossed and perforated.



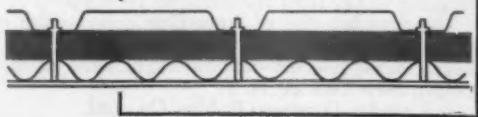
This 42,000 sq. ft. installation demonstrates a new and important advantage of REYCONOWALL—sound conditioning! Here the interior sheet is perforated so that, together with the glass fiber backing, it provides excellent noise reduction. This is in addition to the other well established benefits of REYCONOWALL—speedy, low-cost erection; the high insulation value of two radiant heat reflective aluminum sheets plus the glass fiber; minimum maintenance because aluminum cannot rust, resists corrosion, needs no painting. This is American Can Company's third plant using this highly efficient, low-cost curtain wall system.

A complete installation service is available. For name of the nearest franchised Jobber-Erector, call the Reynolds office listed under "Building Materials" in classified phone books of all principal cities. Or write to Reynolds Metals Company, Building Products Division, Louisville 1, Ky.

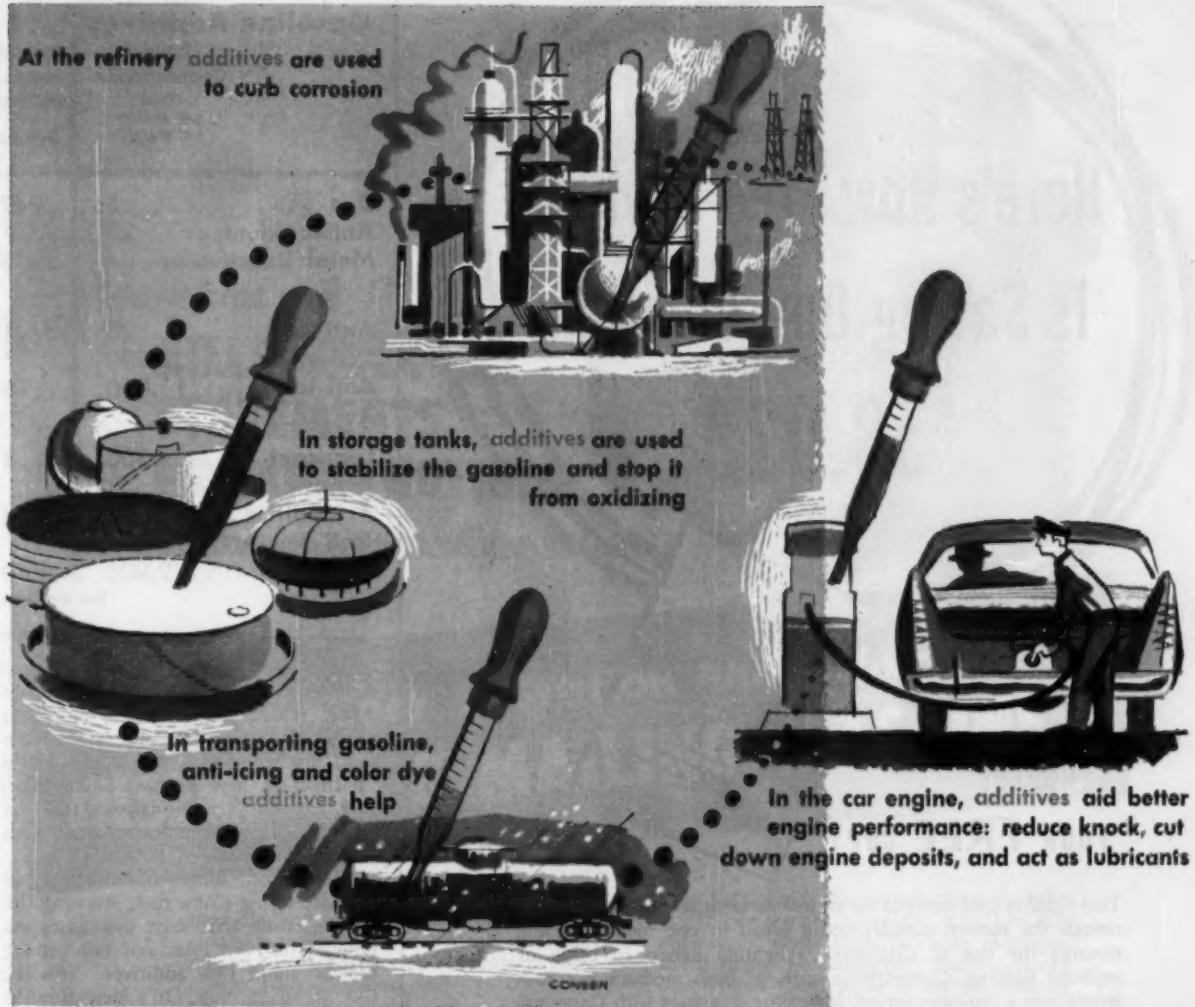
Watch Reynolds all-family show, "Disneyland", ABC-TV Network.

Above is a cross section of Reyconowall as used in American Can Company's Hillside plant.

Profile below shows Reyconowall with 8" rib siding (available both .032" and .040" thick). Exterior and interior may also be Reynolds Aluminum Industrial Corrugated.



REYNOLDS  **ALUMINUM**
BUILDING PRODUCTS



The Extra Something in Gasoline

The quest for new additives goes on, as it becomes increasingly hard merely to boost octane rating as an answer to stepped up horsepower in autos. The refiners seek efficiency by cutting carbon deposit and carburetor icing.

Every time Detroit steps up the horsepower of its cars, the gasoline refiners feel their heads begin to ache. They have to start again to tailor their gasoline to the higher powered engines. The 1958 models are no exception; eight makes of car will boast 300 hp. or more. And plans for 1959 call for further boosts.

Getting higher horsepower means that auto makers have to boost the compression ratios of their engines. Which means the refiners have had to turn out higher octane gas to match. Historically they have done this in two ways:

- By improving refinery processes.

In this approach, the industry has spent billions of dollars. Just since 1945, it has raised the octane rating of its premium gas from 82 to last year's 98.2 (BW-Jul.7'56,p75).

• By adding tetraethyl lead. This additive has grown to a \$260-million business.

The trouble is, it's getting expensive to squeeze any higher octane out of refinery processes. And the refiners figure they've gone about as far as they can with tetraethyl lead.

• Efficiency—As a result, the big hunt has shifted to additives that will give greater engine efficiency without increasing octane rating. In the past few

years there has been a whole slew of such additives aimed at cleaner—and therefore more efficient—combustion. These bear such abracadabra names as Sinclair's Power-X, Shell Oil's TCP, Cities Service's 5-D, Standard Oil of Ohio's Boron Super Premium, and the Texas Co.'s Petrox.

The excitement over this type of additives first flared up in 1953, when Shell launched its TCP. Since then, some of the early zest has tapered off, but research is still being pressed, and each year sees new entries in the field. For 1957, Ethyl Corp.'s AK-33X seems to draw the most attention.

Additives with other goals are being sought. One type is aimed at carburetor icing. In this field are du Pont's DMF and Universal Oil Products' UnicorLHS.

• Not Specific—For next year, there are sure to be new additives, though the research departments are still muffling

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This lighting cost analysis by an independent consulting engineer reveals the money actually being saved in one metal building through the use of Corrulux daylighting panels in place of artificial lighting. Comparative costs of both methods are projected over a ten-year period, indicating a savings with Corrulux, of over \$58,000.00.

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Major Gasoline Additives

	Typical Concentration (Parts per Million by Weight)	Annual Sales (Millions of Dollars)
Dye	5	2
Anti-oxidant	20	7
Metal Deactivator	4	2
Anti-rust	20	1
Detergent	2,500	*
Anti-icing	11,000	10
Lubricant	2,500	5
Deposit		
Modifier	300	4
Anti-knock		
Fluid	2,900	260

*Not available

their promotion men to rather vague mutterings of indefinite wonders to come. There are rumors of improved carburetor detergents. And it's known that the researchers are digging into "rumble"—a new disease, as frighteningly noisy as it is mysterious, that has afflicted experimental engines with compression ratios of 11 and 12 to 1.

Meanwhile, some oil company ad men are trying a new tack, stressing the generalization that their new gases are tailored to 1958 cars, and not getting specific about new additives. You see this trend in Sun Oil's new Sunoco 240, Standard Oil of Indiana's Gold Crown, Atlantic Refining's Imperial—to be marketed under the slogan Power-Mate for '58.

Stressed or not in promotion, these types of new additives represent only 15% of the additives—other than tetraethyl lead—that refiners use. The big part is put in earlier—not to change the nature of the product but to give the gasoline greater chemical stability during refining and transportation.

I. The Troubles They've Got

Back in fusty old 1946, the compression ratios of auto engines averaged a modest 7.2 to 1. In the 1957 models, the average has climbed to 9.14; next year a ratio of 9.66 is expected.

This byproduct of the race for more horsepower means that the mixture of gasoline and air in the cylinder is squeezed into a smaller space at the top of the compression stroke, just before the firing.

This higher compression brings two

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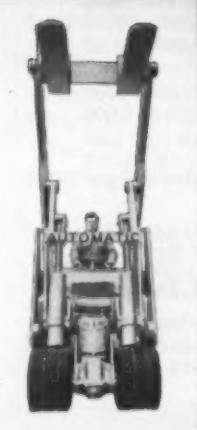
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risks, either of which can spell permanent damage to the engine:

- The greater heat caused by the compression may fire the fuel prematurely.

- The mixture of air and gas may detonate all at once, wasting most of its useful force.

Even without these disasters, high compression engines are plagued by the normal buildup of carbon deposits. These deposits glow red in the increased heat of the cylinder, and may ignite the fuel prematurely. To cure this, some healing additives can either reduce the amount of deposits, or prevent their glowing.

- **Icing**—The cylinders aren't the only things afflicted by high compression ratios and the accompanying ultra-volatile fuels. Carburetor icing is a case in point, doing its dirty work most often in the coldly humid days of fall and spring rather than the dry cold of winter. What happens is that under higher compression, the gasoline to be fed from the carburetor into the engine evaporates so swiftly that the moisture in the fuel charge freezes, plugging up the carburetor. The answers here are being found in such de-icing additives as alcohol or du Pont's dimethyl formamide, which lower the freezing point of the mixture.

- **The Old Cures**—All along, most of the difficulties of high compression engines have been curable by higher octane gasolines, whose more complicated molecular structure gives a more even explosion. But further octane raising by refinery processes is becoming exceedingly expensive; Union Oil of California had to spend \$48-million on equipment to boost its octane number by four points.

Tetraethyl lead, too, is running onto shoals, despite the attractive simplicity of the fact that a few drops in a gallon of gas will boost the octane number somewhere between three and 15 points. The catch is that TEL can increase the buildup of deposits and has corrosive effects that must be countered by another, "scavenger" additive. Also, TEL has toxic effects, so there's a legal limit of 3 cc. per gallon.

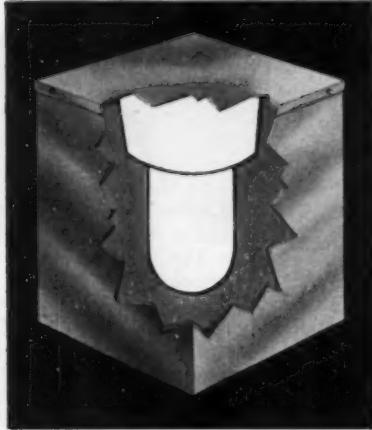
II. Something New Added

The fading charms of octane boosting have been lending new lure to the other additives since 1953. Improved engine performance can win a lot of friends at a time when European cars are making the U.S. motorist conscious of fuel consumption. So just about every major maker of gasoline has been adding these cosmetics to its product.

Up to now, most of the additives have been phosphorus compounds. Shell's TCP (tri-cresyl-phosphate) pioneered, but lately the trend has been



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Many a pedigreed calf grazing on the Argentine pampas or the African veldt was sired by air express! The live sperm of champion American breeding stock has become an important item of world trade.

But packaging presents a problem. The perishable cargo must be shipped in dry ice at temperatures below -100°F.

With ingenious use of rigid urethane foam, Standard Plastics, Inc., Breinigsville, Pa. cut shipping and handling costs for U.S. shippers. Foamed in place to fill a lightweight aluminum shell, urethane makes fabrication simple and fast. It provides thermal insulation that safeguards the contents up to three weeks . . . plus all the needed structural rigidity and impact absorption.

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A letter outlining your potential application will help us to give you pertinent information about urethanes.

National Aniline does not make urethanes but is a major producer of NACCONATES® (Diisocyanates), basic component of all urethane formulations.

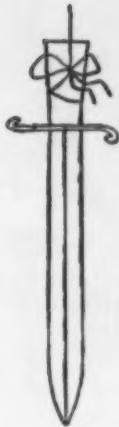
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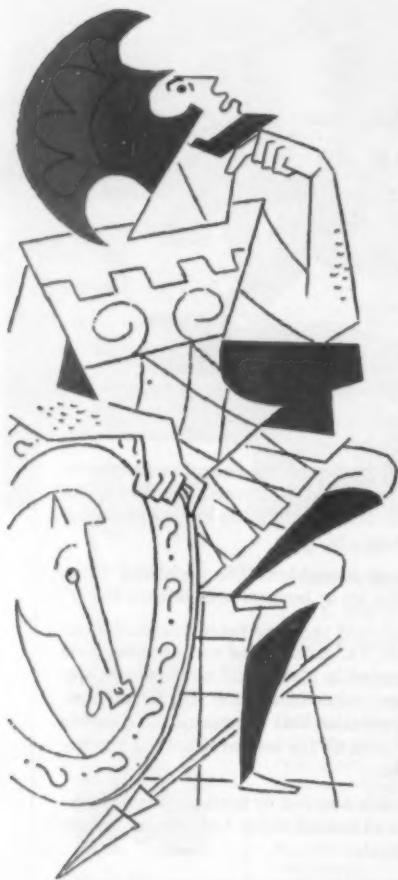
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away from this type of additive toward:

- Other phosphorus compounds, such as Sinclair's Power-X.
- Entirely different compounds, such as Sohio's boron additive and Ethyl Corp.'s new organic manganese additive.

Zealots for the boron and manganese additives claim they provide uniform burning of the gasoline as well as checking deposits. The manganese additive has not yet been successfully adapted to automobile engines, though in aviation fuel it has boosted power as much as 20%. In autos, up to now it has tended to speed the fouling of spark-plugs and to shorten the life of valves.

• **The Seamy Side**—The manganese compounds aren't the only additives that have warts as well as beauty spots. Most of them have been accused of sparkplug fouling; and there's a suspicion that with so many additives in one fuel they may end by canceling each other out.

The gasoline makers have tried many angles in their hunt for additives closer to heart's desire.

Lubricants. Some refiners have added light oils, in concentrations up to a few tenths of 1%, to their gasoline, in a move to get better lubrication of valves and the upper cylinders. This has often reduced deposits on valves, and for the first time, has brought immediate lubrication, as the engine is started, to some parts.

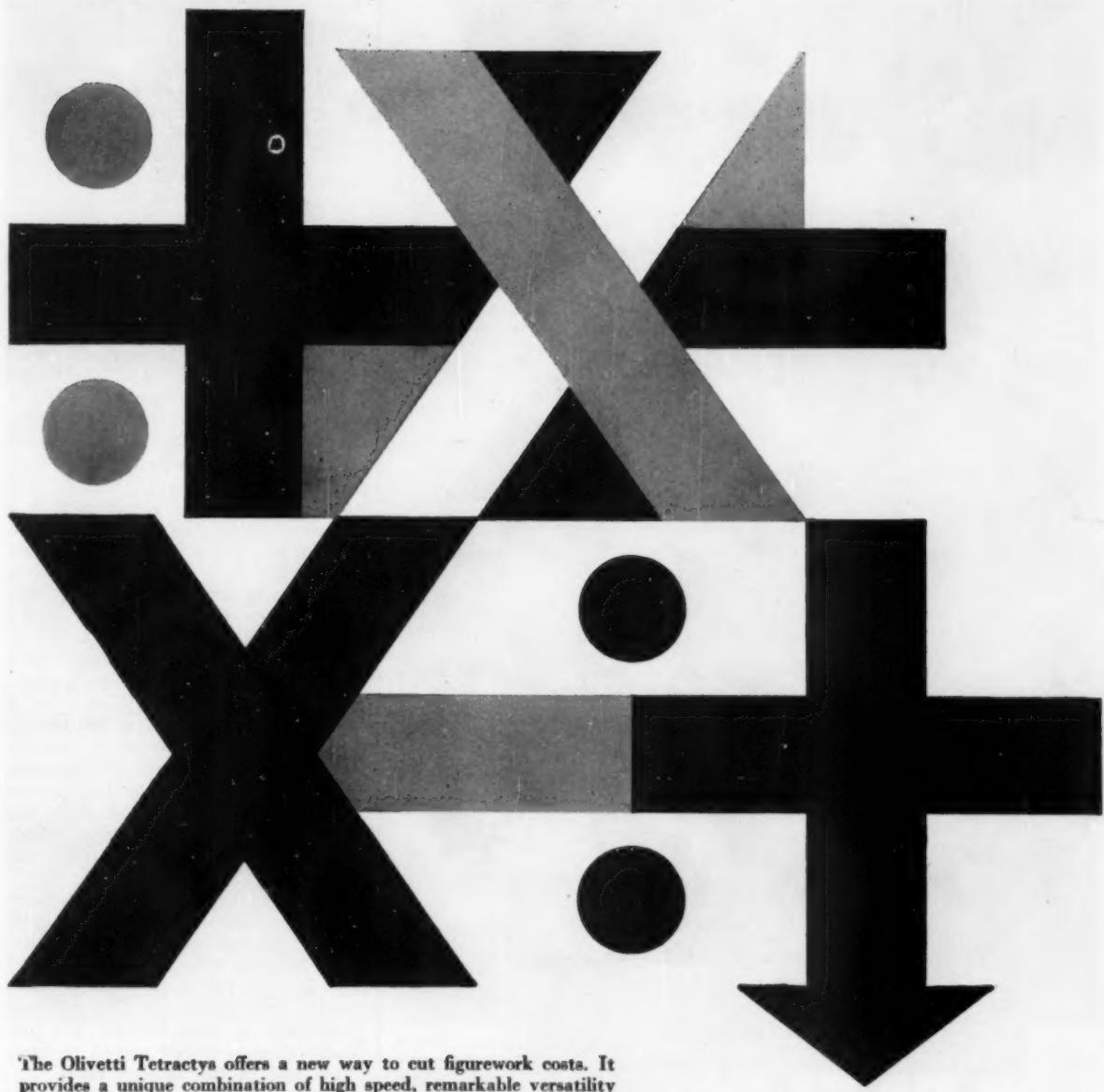
Detergents. Standard Oil of California and Esso are among the companies using an additive having a detergent action that lessens the deposits left on the carburetor and the intake manifold by the oxidation of fuel while the engine is idle. The detergents dissolve the stubborn gums deposited by the oxidation.

• **The Phooie Group**—There's one school of thought that would like to discard additives entirely, thus Esso Research & Engineering Co. thinks the best solution to deposit lies in developing gasolines composed primarily of the lighter fractions; Phillips Petroleum shares this view. However, it's a subject where alignments change quickly. Thus Sinclair soft-pedaled additives—till it came up with Power-X and had a change of heart.

Some refiners believe that Detroit should do the job itself, by designing engine cylinders for better combustion, which would mean less deposit. Tide-water Oil, which has tried some 200 additives, calls engine design "a one-shot approach that could take care of the problem once and for all."

III. The Unseen Additives

All these ballyhooed engine additives make up a relatively insignificant 15% of the whole picture of non-tetraethyl



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lead additives. The main show comes with the additives put in by the refiners for their own purposes, in the refining and transportation stages. The industry spends about \$22-million a year on these additives, which include:

Anti-oxidants. These so-called storage inhibitors were introduced in the late 1920s to prevent stored gasoline from oxidizing to form hard-to-dissolve gums. Alkylated phenols and amines are used mostly, with from 16 to 22 lb. being added to each 1,000 lb. of gasoline.

All told, some 6-million lb. of anti-oxidants are used each year, with Koppers Chemical, Eastman Chemical Products, and Davidson Chemical among the big producers. A new product, which also oxidizes objectionable sulphur compounds out of the gasoline, is Universal Oil Products' UOP No 5-6.

Rust inhibitors. Ammonium sulfonates and organic phosphorus compounds are most widely used in efforts to prevent the water in the gasoline from rusting refinery equipment, pipelines, and tanks, not to mention your own gas tank and line. The idea is to put a film-like coating between water and metal. The market here is about 5-million lb. a year.

Metal deactivators. Tiny bits of copper and brass—as little as 10 parts in 1-million—dissolve into the gasoline from the fittings of the fuel system and act as catalysts to speed oxidation. Special additives prevent this by absorbing or “sponging up” the metal particles.

Anti-icers. Various alcohols, as much as 2% by volume, are added to gasoline to prevent the freezing of water. This helps in bulk transportation and also protects the motorist's fuel, tank, pump, and carburetor. The \$10-million spent on these de-icers each year makes them a distant second to tetraethyl lead in the additive field.

Dyes. These are added just for looks, to distinguish the various makes and grades of gas.

• **Stumbling Block**—The very number and variety of these engine and refinery additives creates a real hazard for the developing of anything new in the field. Many a new additive has had to be junked because it interacted with earlier comers. To succeed, a new additive must include these virtues:

- It must not be affected by any of the hydrocarbons with which it will be blended.

- It must not be affected by heat, water, or contact with metals.

- It must not chew up storage or engine metals, either before or after it has been burned.

If it passes all those tests, the new additive has only to prove that it can do some good, too. **END**



Walter Thompson, General Manager of Cook and Co., points out

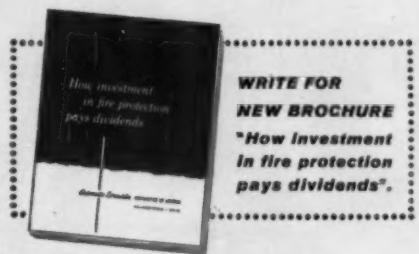
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"We invested \$85,350 in an 'Automatic' Sprinkler fire protection system for our plant in Hazelhurst, Georgia. Our investment is paying off big dividends.

"Before we installed 'Automatic' Sprinklers our annual insurance cost was \$34,912.

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"And saving \$33,517 on insurance premiums annually isn't our only dividend from 'Automatic' Sprinkler fire protection. Now we also have proven protection against any interruption of production a disastrous fire could cause. Now we can be sure that fire will not affect our capacity for producing wooden step ladders and knocked-down, packaged wooden truck bodies."



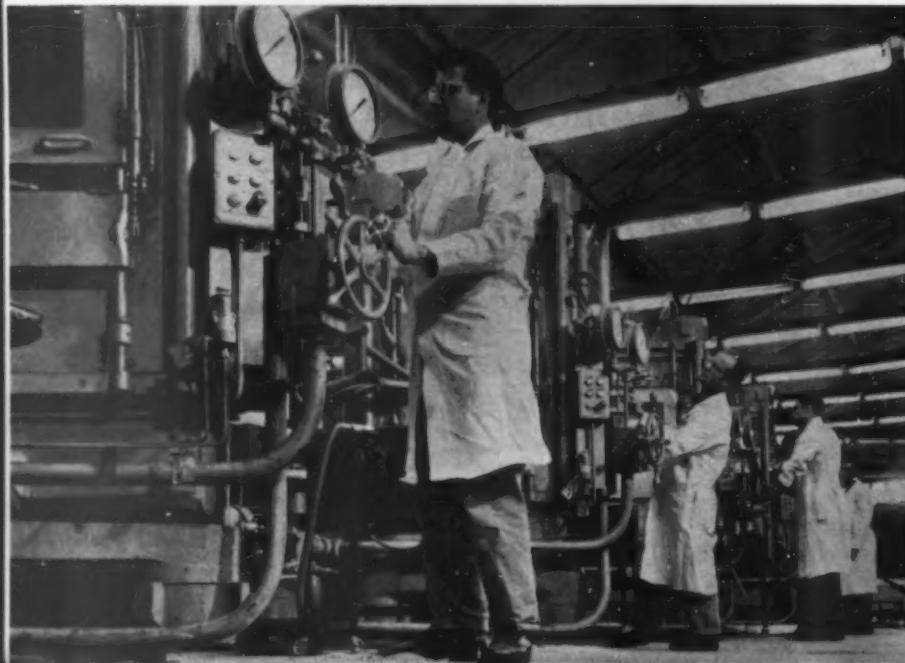
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Man-Made Gems Swing Weight



COMMERCIAL diamonds (above) are produced on small presses (below) capable of generating tremendous pressures and temperatures. GE claims that for industrial purposes its gems are as good as the natural bort from South African mines.



General Electric has already produced 45 lb. of industrial diamonds in its pilot plant, plans full-scale production.

No longer is there any doubt. The hold of the diamond syndicate of Anglo-American Corp. of South Africa on the industrial diamond market has been loosened.

This week, General Electric Co.'s Metallurgical Products Dept. tossed into the syndicate's gears a handful of diamond dust (top picture), which it had made in its new man-made diamond pilot plant. Within the past few months, the small presses (bottom picture) at GE's Detroit plant have turned out a 45-lb. pile of industrial diamonds that, GE claims, are as good or better than the natural bort that comes from the South African mines.

- **Progress**—GE proved two years ago that it could make diamonds (BW—Feb. 1955, p64), but the process looked expensive and difficult. What surprised the industry was the short time from discovery to commercial production.

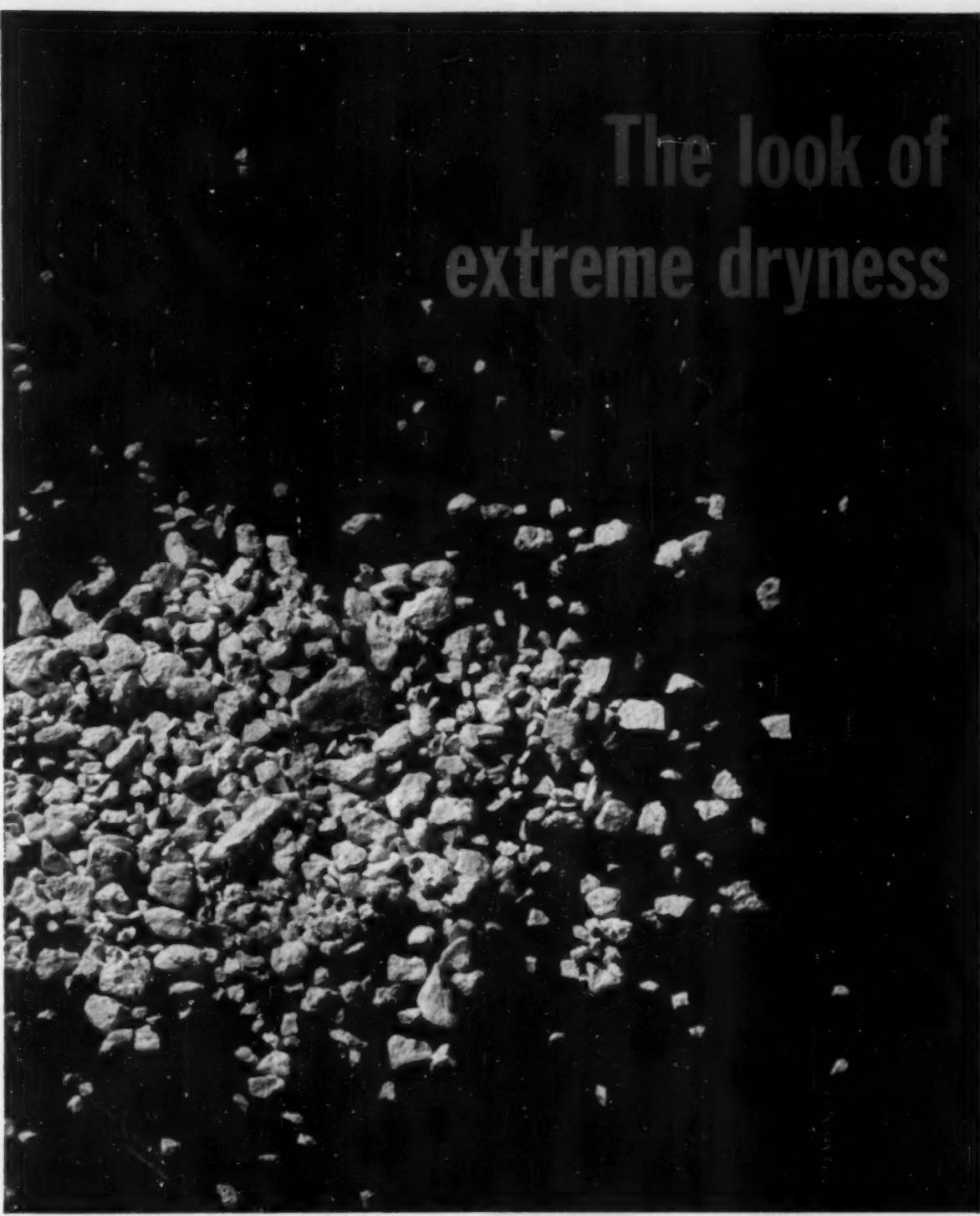
GE made its first diamond in Detroit in July, 1955, but didn't start pilot production until last August. Despite the short time its six presses and 40 employees have been on the job, GE has still been able to turn out 100,000 carats of stones. That's about one-seventieth of the 7-million carats (\$20-million worth) of industrial diamonds imported annually from the syndicate and a few other sources. And by mid-1958, GE plans to extend its present pilot operation into a full-scale production plant.

- **Earthy Gems**—GE's commercial diamonds don't come in sparkling piles. They're a dull grey dust that glitters only under a magnifying glass. Although they range in size only from table salt-sized crystals to fine sand, they're large enough to do about 80% of the industrial jobs where the hardness of diamond is needed.

The most widespread use is in grinding wheels used for sharpening cemented carbide metal cutting tools, but they have plenty of potential uses. GE's diamonds tend to be more jagged and oddly shaped than natural stones—a benefit to toolmakers since they are easier to hold in a grinding wheel.

GE's retail price for the pilot plant product is \$4.25, compared with \$2.85 for natural diamond bort. However, as production is stepped up, GE expects the cost to drop.

- **Bigger and Better**—So far, GE doesn't claim any success in making diamonds



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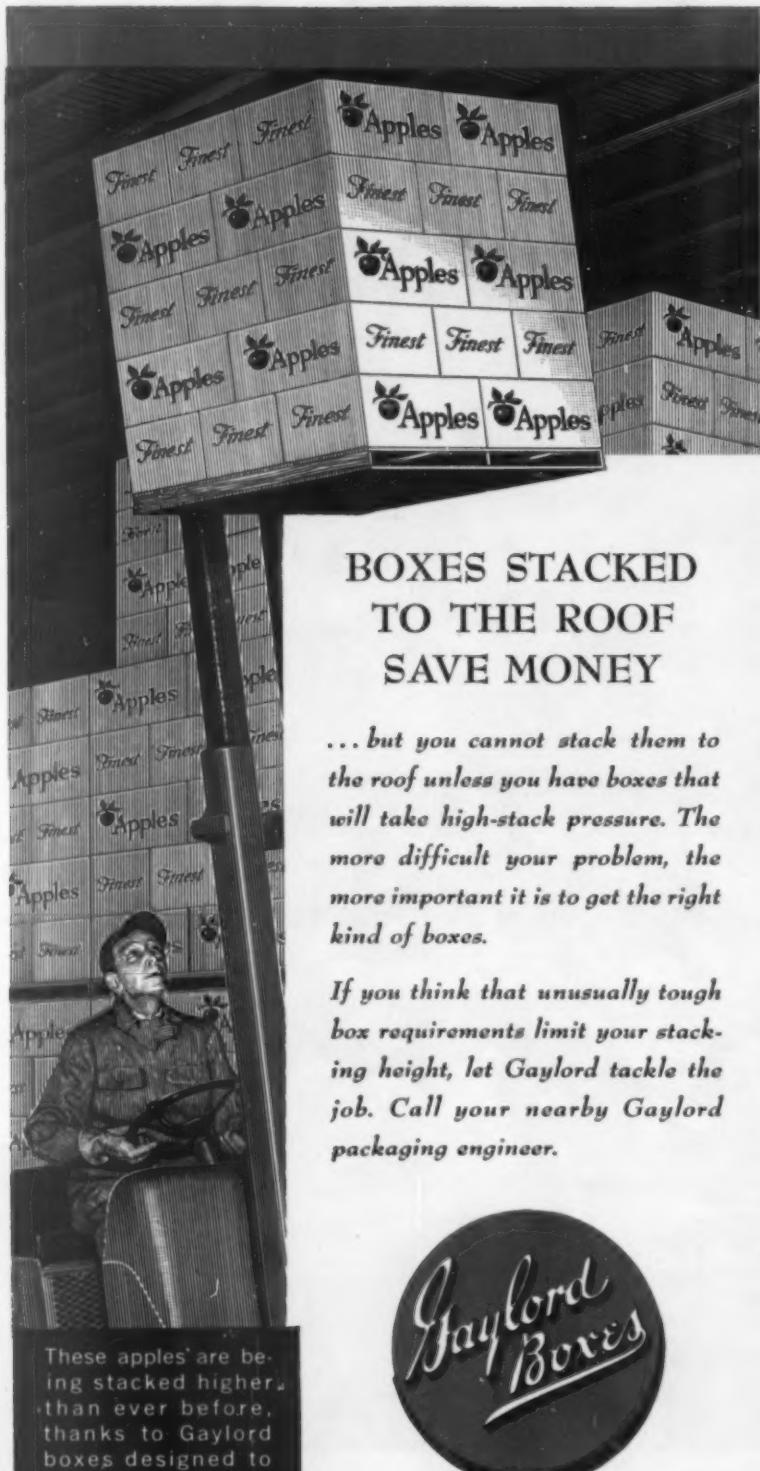
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larger than $\frac{1}{4}$ in. in diameter, although about half its development effort is aimed in that direction. The other half is bent on developing Borazon, a synthetic material that is even harder material than diamond, which is made under similar conditions of high pressures and high temperatures.

It was the high temperature—5000F combined with a pressure of 14-million psi.—that made many researchers believe the commercial production of diamonds was not possible. Now it's only a matter of time until larger man-made diamonds are made, and these will draw even higher prices for such applications as dies for wire drawing and solid diamond cutting edges.

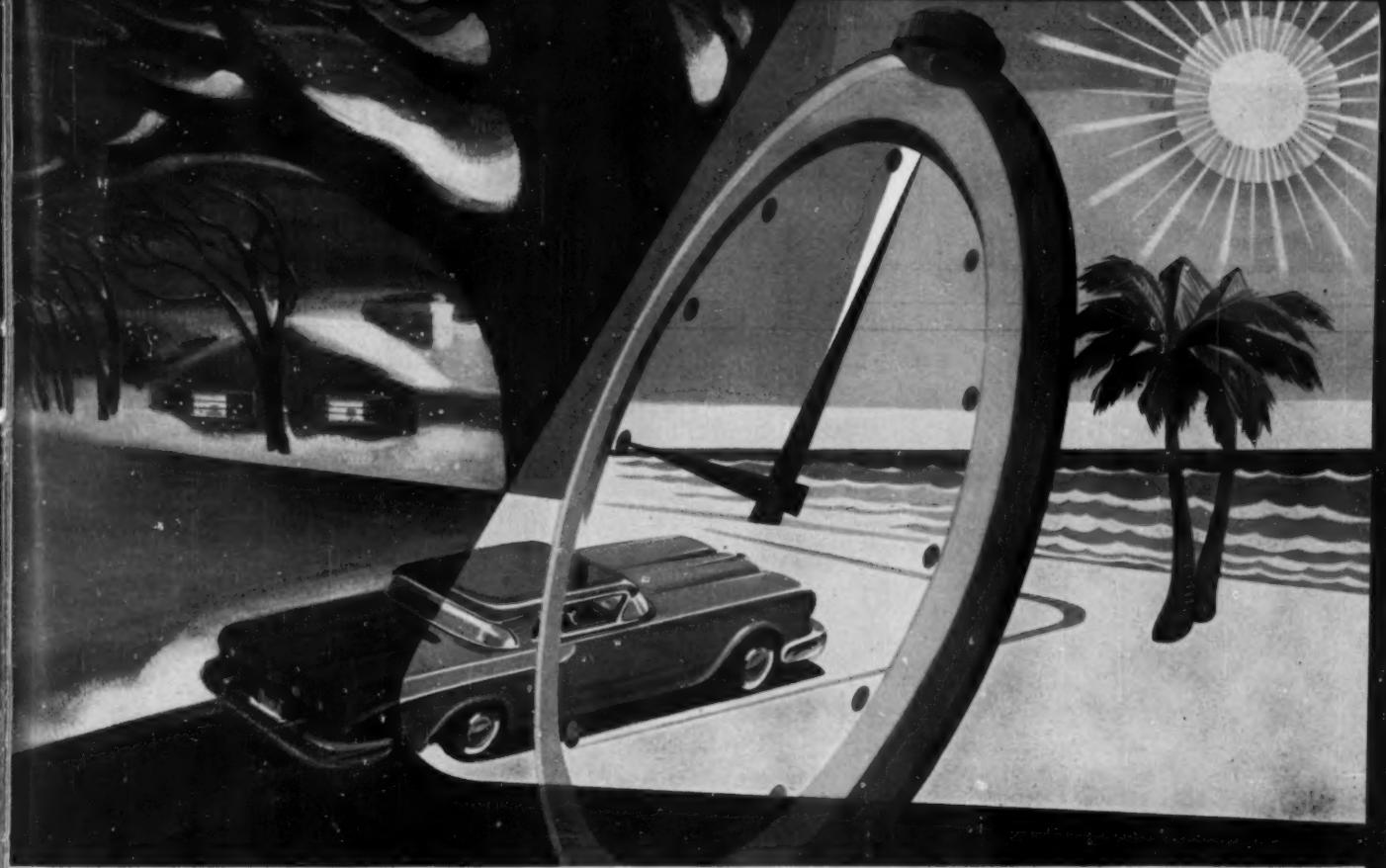
- **Nature's Rival**—So far, there's been no success in making gem stones, the most profitable end of the diamond business. GE's diamonds are nowhere near large enough or of sufficiently high quality for that use. But, the gem trade recalls, synthetic sapphires were very small before the war. Now you can get them 3 in. in diameter, and Linde Air Products has succeeded in making synthetic star sapphires and rubies more brilliant than nature's own.

PRODUCTION BRIEFS

Dry tanning is proving itself as a quicker way to make leather. Seco Venture of Peabody, Mass., which has been operating a dry tanning machine at Eagle-Ottawa Leather Co. (BW Oct. 5 '57, p184), has arranged for manufacture of a commercial version of its dry tanning machine with Proctor & Schwartz, Inc., Philadelphia. Meanwhile, Virginia Oak Tannery of Luray, Va., is in volume production of sole leather, using a solvent technique different from the Seco process.

Low pressure polyethylene, the more rigid, heat-resistant version of the squeeze bottle plastic, is hitting the market in large quantities. Phillips Petroleum has brought out four new types—one for baby bottles. Du Pont and Dow Chemical, two of the major hold-outs on the rush to low-pressure polyethylene, recently announced plans to build commercial size plants. Total high- and low-pressure polyethylene capacity will hit 1.4-billion lb. by June, 1958.

Microwave radio is controlling a water pumping station for three divisions of Olin Mathieson Chemical Corp. in East Alton, Ill. Faced with replacing a 3½-mile cable control from its plants to the edge of the Mississippi River, the company found that a microwave system required less maintenance than a 3½-mile wire.



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distributor will be glad to tell you where it is available. It's another great product from Stewart-Warner.

Through the intensive new product development efforts of its nine widely-diversified, highly-integrated operating divisions, Stewart-Warner continues to strengthen further its leadership in such dynamic, rapidly-growing fields as advanced electronics, instrumentation, high pressure lubrication, materials handling, combustion, and complex heat exchange technology.

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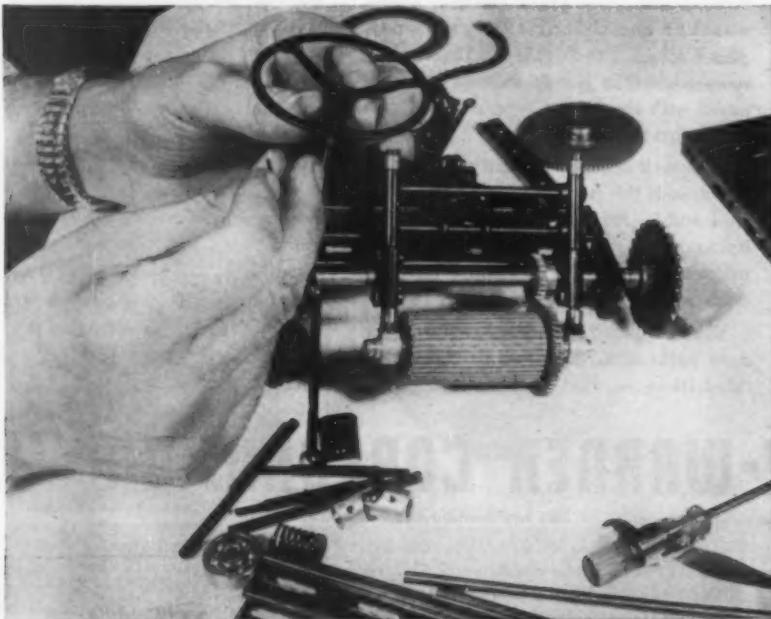


Building

NEW PRODUCTS



CONSTRUCTION KIT of 5,000 mechanical parts enables the engineer—or born tinkerer—to make almost any mechanical device in model form. Builder is working on a gang saw.



BUILDER attaches wheel to model with an Allen wrench. Only three tools are needed to make a model. The kit, FAC, put together by a Swedish designer, is now sold in U. S.

Workable models of almost any mechanical device can be made from a set of precision, good quality components.

It's always easier to demonstrate how a device works than to explain it. And often it's easier actually to make a mechanical widget than to design it on paper. With that in mind, a Swedish designer has put together some 5,000 pieces of common mechanical components of good quality and precision, packaged them in a construction kit called FAC (pictures). The set should bring joy to any engineer who's ever gone tongue-tied trying to explain his latest brainstorm. Now, if he has talent and \$400 to spare, he can shut up and put up a model in jig time.

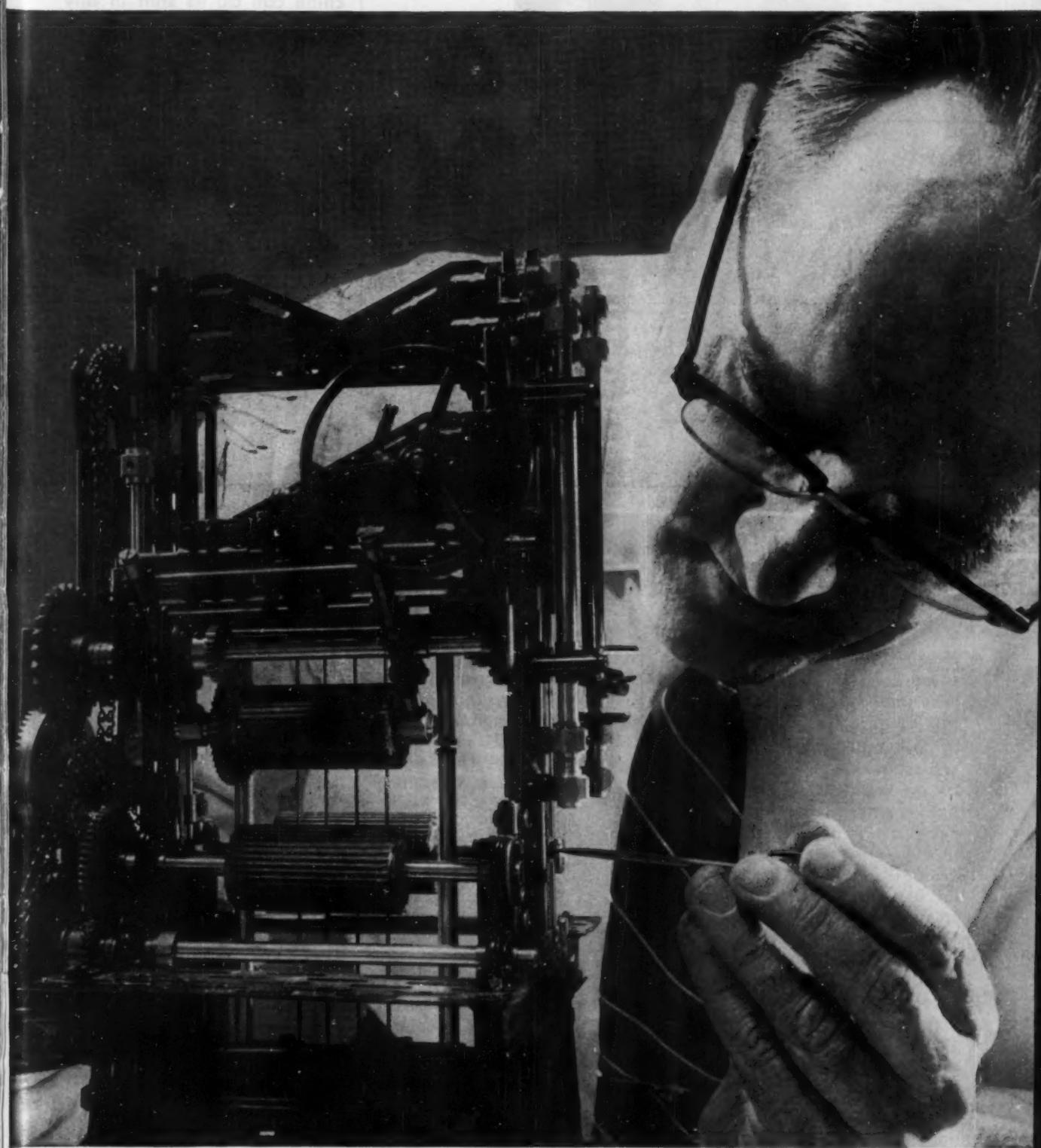
• **Flood of Orders**—Last week, the first few thousand kits and extra parts arrived from Sweden in response to a frantic order from the importer, Overseas Commodex Corp. Representatives of the company had showed the kit at an engineering trade show, and were nearly stampeded by engineers.

Actually, the set is probably the most complete and varied collection of precision parts ever put together for the purpose of general model building. It is possible to make just about any purely mechanical device from the parts, which include, in addition to steel structural members, such things as ratchet drive components, worm gears, ball bearings, pillow blocks, universal joints, tie rods, chain and belt drives, and other common elements of mechanical devices. Using nothing but standard parts from the kits, you can even make an automobile chassis complete with independently sprung wheels, differential, and steering linkage.

• **Practical Uses**—In Sweden, the FAC kits already have met with some success. Several companies use them to build working models for sales demonstrators. The gang saw in the pictures was made, reportedly, for preproduction engineering study. A Swedish testing lab, on the other hand, has found the kits handy for building mechanical testing devices. While the quality and price of the kit will limit it to the professional level, the importers believe it has a potential market as a gift. "If you can't think of anything an engineering executive hasn't already got," they say, "you can give him a FAC and he can make it."

• **Cost**—The kits are sold in two sizes. The Minor Industrial kit, containing about 2,500 parts, costs \$250. The Major Industrial kit, with some 5,000 parts, sells for \$400. **END**

Kit for Mechanical Tinkerers



FINISHED MODEL of lumber mill gang saw will cut wood fed through rollers. Precision parts have tolerances of 1/10,000 of an inch.



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RB&W FASTENERS — STRONG POINT OF ANY ASSEMBLY

Tub-less Washer

Nine-lb. washing machine can do its stuff in any sink, scrubbing a batch of laundry in 10 minutes.

A tub-less washing machine—14 in. high and weighing 9 lb.—which performs the same functions as its full-sized kinfolk, has been developed by AMI, Inc., Grand Rapids, Mich.

The machine is a portable electric agitator that sits on its own suction cups in sinks or containers. When it is plugged into an electric fixture it goes into a four-way shimmy that will scrub up to 4 lb. of clothing in 10 minutes. The wash floats through the water—a depth of 7 in. is needed—on a tide of bubbles produced by airducts at the bottom of the washer. The aeration multiplies the sudsing action of soap or detergent so greatly that a teaspoonful does the trick. An impeller in the base of the machine sets up currents that tumble the clothes continuously under water while four nylon agitators move up and down 400 times a minute, simulating hand scrubbing.

It is safe to plug in the machine while it is half submerged, says the Underwriter's Laboratories. It is guaranteed shock-proof even when covered by water.

The company hopes to capture the cramped-quarters market in trailers, apartments, dormitories, where larger machines won't fit. It will retail at \$59.95.

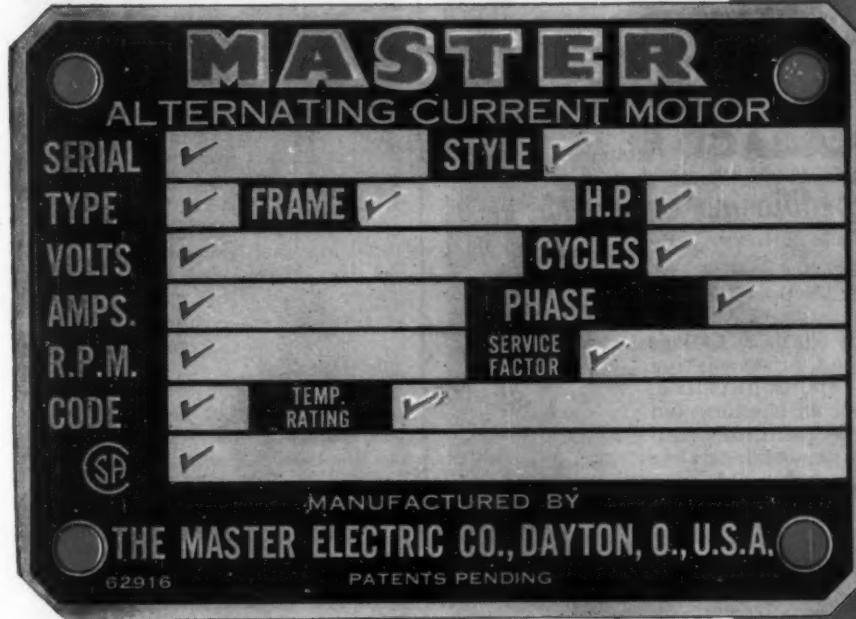
New Moisture Analyzers Are Fast and Accurate

Anyone with a surplus water problem now has his choice of several different moisture analyzers that outperform any instruments for water analysis ever marketed before. The analyzers offer a fast and accurate method of detecting water in any gas sample with an accuracy of one part per million. They were designed primarily for refrigeration equipment makers, gas transmission lines, bottled gas suppliers, and a large part of the chemical process industry. To these people, the presence of small amounts of water vapor can make the difference between salable or unsalable products, or operation or shutdown of facilities.

The new instruments were developed a couple of years ago by du Pont's instrument laboratories and subsequently licensed for production to Consolidated Electrodynamics Corp., Manufacturers Engineering & Equipment Corp., Beckman Instruments, and Leeds & Northrup.

- How They Work—The instruments

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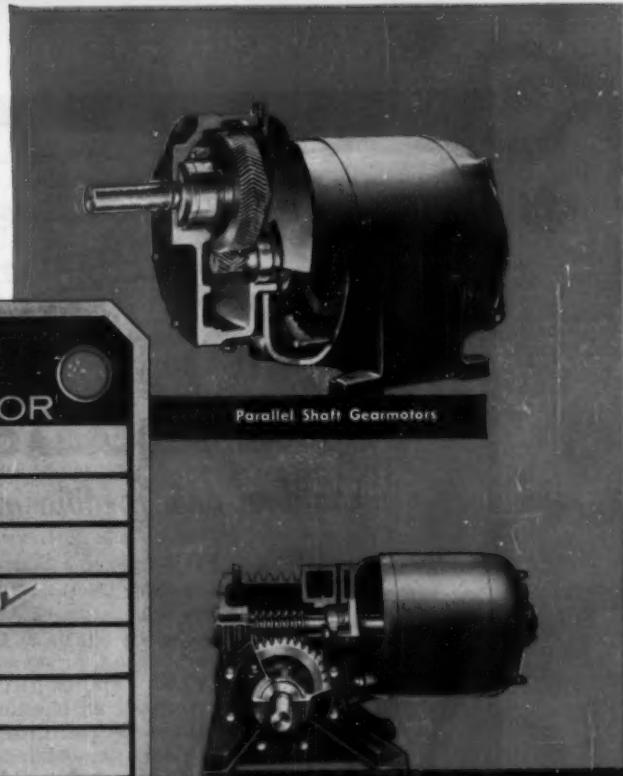
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Speeds Single speed, multi-speed, and variable speed.

Installation Horizontal or vertical, with or without flanges and other features.

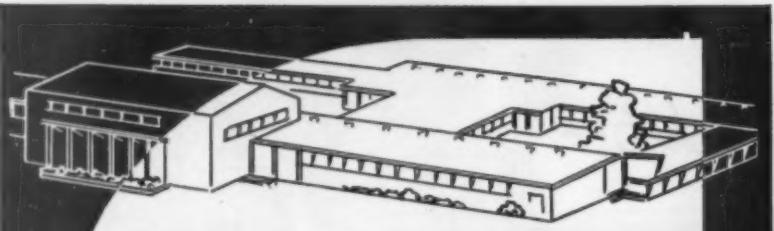
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work on a simple principle of electrolysis, in which water is broken down into its elements, oxygen and hydrogen. The detection cell of the analyzer contains a plate with a thin layer of phosphorus pentoxide, a chemical that attracts any moisture present in the sample. Once moisture is attracted, the layer becomes conductive. Current passing through the layer electrolyzes the water, and, in effect, dries out the layer again. The amount of electricity required to electrolyze the water in the detection cell is recorded by the instrument, giving the amount of water in the gas flow or sample.

• Cost—The instruments are small, weighing between 15 lb. to 32 lb. depending on the manufacturer. Consolidated Electrodynamics Moisture Monitor, the lightest of the models, sells for \$650, is portable, and can be used in the field with a battery pack. Meece's Electrolytic Water Analyzer is priced at \$565. This company also offers a battery-operated version. Beckman's instrument, the Electrolytic Hygrometer, is quoted at \$750. It weighs 32 lb. Leeds & Northrup has not yet tied a price tag on its model.

NEW PRODUCTS BRIEFS

Double-coated paper tape with a high strength rubber adhesive on both sides has been introduced by Minnesota Mining & Manufacturing for mounting rubber printing plates and for securing glass in metal door and window frames. The tape bonds firmly to both natural and synthetic rubber, will also do a good holding job on glass, according to MM&M. The tape is made in widths $\frac{1}{2}$ -in and wider, comes in 36-yd rolls.

Cutting patterns for plywood can be printed directly on the panels with a new printing press developed by Stetson-Ross, Inc., Seattle woodworking equipment manufacturer. The press, intended for plywood manufacturers and distributors, prints patterns on 4-ft. by 8-ft. sheets sold as kit materials for do-it-yourself projects. The printing unit costs \$9,800. Printing mats for the unit range from \$300 to \$600 depending on their complexity.

Transistorized portable radio that has a special low frequency band to receive government weather broadcasts and aeronautical direction beacon signals has been introduced by Motorola, Inc. The set, the Weatherama, was designed particularly for sailing and cruising enthusiasts, but receives standard broadcasts as well as the weather station. Suggested retail price: \$79.95.

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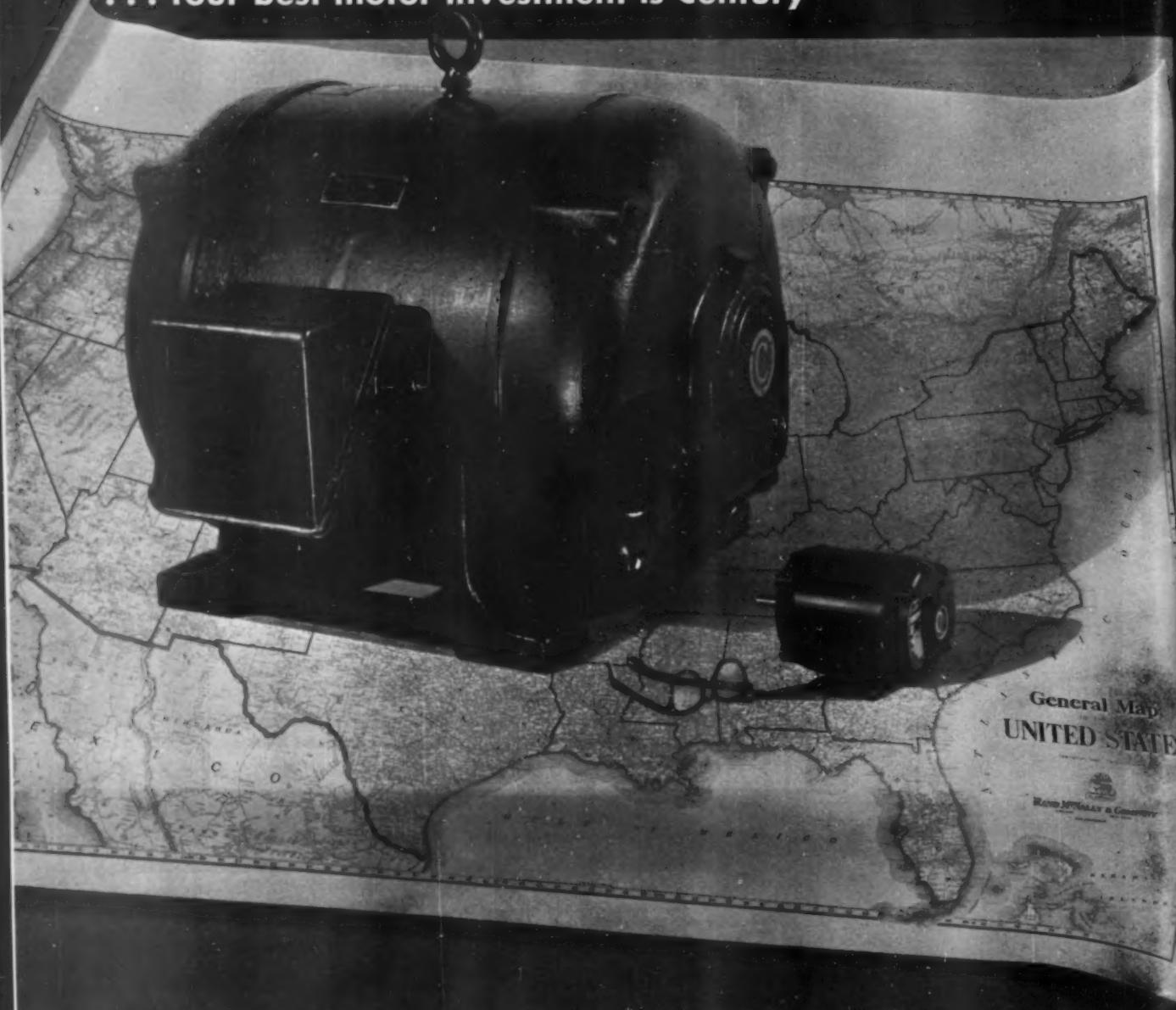
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In Management

At International Harvester

New President Takes Hold

International Harvester Co. has a new boss. Last week, Frank W. Jenks stepped up from executive vice-president to follow Peter V. Moulder as president. Moulder is giving his successor a free hand and breaking most of his ties with the business world as well. After 47 years with IH, he is resigning his directorship, giving up positions in a number of other organizations, and moving to Florida.

Jenks, at one time the company's merchandising vice-president, says he will "try to do more things rather than talk about them." So far, though, he hasn't made his plans specific.

He will find that almost one-third of IH officers are also new in their present jobs. In the past year, six of the company's 19 officers have retired (for reasons of age or health). However, insiders expect few more changes at this time.

Elgin Hopes to Beat Competition

By Importing More Swiss Watches

The old adage that "if you can't lick them, join them," is finding new adherents in the watchmaking field. Elgin National Watch Co., which has been having its share of diversification troubles (BW-Sep.21'57,p151) and also has been hard-pressed in the watch business, plans to increase imports of the very Swiss watches that have been driving it out of business. The move comes at a time when Elgin's watch production is down to 50% of capacity and after a loss of \$650,000 over a 28-week period ended Sept. 14.

Hamilton Watch Co. is trying the same tactic, which may mean some rugged competition for Elgin. Hamilton has signed a long-term contract for watches made in Japan, where wage rates are even cheaper than in Switzerland (BW-Oct.19'57,p52).

Litton Goes on Its Merry Way

Picking Up More New Companies

The time to buy up companies is when an industry looks as if it's not doing very well. That's the advice of Charles B. Thornton, president and chairman of Litton Industries, Inc. (BW-Oct.12'57,p78), the electronics and research concern that in recent weeks has more than doubled its annual sales volume of some \$32-million through acquisitions.

On Oct. 11, Thornton announced that Litton was buying Aircraft Radio Corp., Boonton, N. J. (annual

MORE NEWS ABOUT MANAGEMENT ON:

- P. 197 For American Machine & Foundry Co., after helter-skelter growth, a change of pace.

sales, \$3-million). This came on the heels of an announcement that Litton had acquired Maryland Electronic Mfg. Corp. (annual sales, \$10-million). On Oct. 12, Litton made it known that it also was picking up Monroe Calculating Machine Co., Inc. (annual sales, \$40-million).

These moves are neither the end nor the beginning of the company's acquisitive tendency. Since its organization in 1953, Litton has integrated some 18 companies into its operations. And it plans to go right on picking up more.

Thornton, an alumnus of Hughes Aircraft Co., believes the multicompany electronics industry is going through a drastic shakeout and he is moving fast to keep his own company big enough to continue picking up the pieces as they fall.

• • •

An Expert Tells Executives

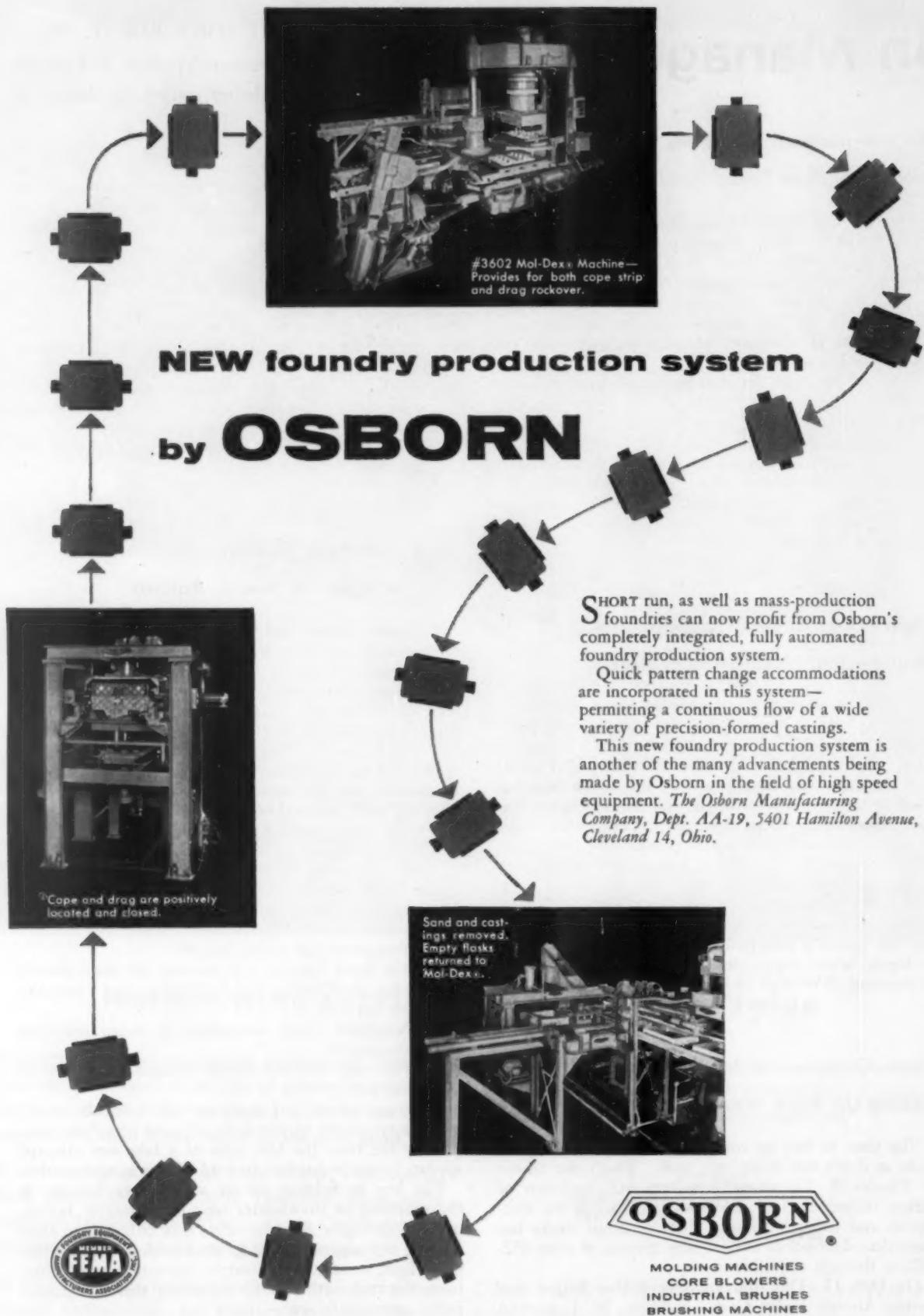
How to Invite—or Avoid—Raiders

Company raiders and proxy contests probably perform a useful function by forcing complacent and self-satisfied management to snap to, says James P. Selvage of Selvage & Lee, Inc. Selvage has a special knowledge of the subject; he's probably been management adviser in more proxy battles than any other man. Speaking last week with executives at an American Management Assn. conference on mergers and acquisitions, he pointed out the conditions that make a company a sitting duck for raiders:

- Big easily accessible bundles of cash sitting around idle in the company account.
- Stock selling far below book value.
- Tax loss credits.
- Hidden assets, properties carried at far below actual worth.
- Properties that invite spin-offs.
- Fat stock options and bonuses for management (something stockholders are starting to lose sympathy with, says Selvage).
- Negligible stock ownership by board members and management.
- Poor sales and earnings in relation to the rest of the industry.

Selvage advises any company that exhibits several of these symptoms to watch its step and mend its ways. For, by the time the first signs of a take-over attempt appear, it may be too late to fend off the hungry pirates.

The key to fighting off an attack, says Selvage, is the soliciting of stockholder support preferably before, but also during, a struggle. This may entail more than sending out urgent letters to stockholders. In a close proxy fight, he admitted privately, the winning side often turns the trick with a clever maneuver that the general public never really see.





TOP MAN at AMF is Morehead Patterson, chairman and president. He sets company's tone.

AMF's Unorthodox Success Story

American Machine & Foundry fattened by violating a number of management rules. Now, however, the company is paying some attention to them.

Pictured above is the boss of a company that has made good by disregarding quite a few rules usually considered important for corporate success.

The man is Morehead Patterson; his job is president and chairman of American Machine & Foundry Co. About AMF's current success, there can be little doubt. As recently as 1945, it was doing only a modest \$12-million worth of business in cigarette and packaging machinery; in 1957, a record year, its sales are running at a new high annual rate of \$250-million, profits promise to hit a new peak of \$12-million, and assets are well above \$200-million.

• **Unorthodox Ways**—AMF got where

it is by violating—so far with impunity—rule after rule in the management book. For instance:

- Instead of growing gradually from within, it went on a spree of acquisitions (21 companies to date) and wide diversification (half the companies have absolutely no relation to each other, or, for that matter, to anything AMF has ever done before).

- Instead of acquiring companies as an investment for future growth, it did so to get cash and credit for its own operations.

- There has been no particular effort to integrate operations in the AMF empire. The properties are left pretty much to their own devices.

- As for top management personnel, instead of promoting from within, AMF has imported the bulk of its brass from outside.

- And it's still substantially a one-man company, without the management "teams" developed elsewhere.

"We're a case of success through ex-

cess," quips one officer. That may be so, but success in any form is hard to dispute.

- **Virtues and Vices**—Patterson's company is a big, polyglot outfit that turns out more than 50 major products—ranging from rubber footballs and Junior's tricycle to radar, oil well drilling equipment, atomic reactors, and pretzel-twisting machines. Almost half AMF's 1956 profits came from its automatic pinspotter for bowling alleys.

But however many the virtues of AMF's size, diversity, profits, and growth, there are vices that go along with them. Any organization can only go so far, so fast, and Patterson now talks of slowing down a bit to apply some of the rules he has up to now blithely ignored. "We need to shake down what we already have," he says.

- **Man on Top**—But it's unlikely that Patterson himself will change very much. A big man, sometimes blunt in his speech, he has supreme confidence that he is right. AMF's present charac-

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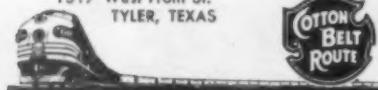
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Technological Unemployment, Pin Boy Style



American Machine & Foundry Co. probably doesn't know it. But its pinspotter—the automatic device that "sets 'em up" in almost 30,000 of the nation's bowling alleys—has been something of a force in modern literature.

As a matter of fact, the machine may have figured in enough manuscript pages of bad fiction to paper the walls of the Library of Congress.

"Pinspotters, oh Lord, I know all about pinspotters," moans the fiction editor of a slick men's magazine. Every month he rejects at least three stories that used the pinspotter—and what it did to the pin boy—as an example of the way machines are conquering culture. Muses the editor: "I actually suspect that one out of 10 young writers today is really a displaced pin boy."



ter is inextricably linked with Patterson's confidence, his ambitions, and his insistence on developing and marketing the automatic pinspotter—now the company's brightest jewel.

AMF began as a machinery division of American Tobacco Co., split off from its parent in 1912 after an anti-trust action. In 1937, when Patterson started work on the pinspotter, the company was still almost exclusively a maker of machines for wrapping cigarettes and bread. Patterson's father, Rufus Patterson, was the boss then, and the son was heir apparent.

Morehead Patterson had come to AMF via a posh route—Groton, Yale, Oxford (where he played polo and roomed in Christ College with Henry Luce of Time, Inc.), and Harvard Law School. He took over AMF's presidency in 1941, assumed the chairmanship as well two years later when his father died. By this time, the company was a volume producer of radar sets and gun mounts for the wartime Navy. Patterson has kept it hopping into new fields ever since—but, in a sense, as much by accident as by design.

I. How AMF Spread Out

At war's end, Patterson foresaw a small, relatively safe volume for AMF's regular line. The trouble was the fluctuation he also could see in the business. Since the company had money, and Patterson had ambitions, he moved into a threefold program—against the advice of company officers:

- Development of the automatic

pinspotter, to replace the pin boy in bowling alleys from coast to coast (box, above).

- Preliminary ventures into atomic energy, to gird for long-term growth in this field.

- Continuation of defense products, for bread-and-butter income—and to give the company a chance to build up an engineering staff.

- At First, a Fizzle—Unfortunately, Patterson stubbed his toe almost at the beginning. In 1947, he thought the pinspotter had been perfected, and he borrowed \$8-million to produce and market it. But the machine flopped dramatically—it was too cumbersome and unreliable. AMF lost almost all its investment, and Patterson had to face a board of directors that openly questioned his judgment and ability. He had promised lush earnings from the pinspotter to pour into other expansions; instead, the pinspotter project itself needed bailing out.

Patterson managed to hold on (his ownership or control of a significant share of company stock undoubtedly helped), and four years later he had his pinspotter—the present successful model. In the process, he took the company far afield.

- Strategy—In 1948, to continue development of the pinspotter, what Patterson needed was cash and earnings. He already held in his hand an established company with a listing on the Big Board. So he parlayed one to gain the other.

What AMF did was to go wholesale into acquiring likely companies by ex-

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"...also, AMF bet wisely and well on defense products . . . working largely with government capital, the company rode the Korean War boom . . ."

STORY starts on p. 197

change of stock. And business was brisk. AMF was willing to take on just about any company that came along—if it had good earnings, good prospects, and management that promised to stay on the job. Many owners, for estate and other purposes, were very happy to swap shares in their private unlisted businesses for AMF's widely traded stock. Therefore the company was soon in such widely diverse fields as:

- Electronics (Transducer Corp.).
- Power saws (De-Walt, Inc.).
- Bicycles (Cleveland Welding Co.).
- Industrial fasteners (Thompson-Brenner & Co.).
- Electric motors (Leland Electric Co.).
- Missiles (Associated Missile Products Corp.).
- **Base for Growth—**Acquisitions such as these kept AMF's earnings high and increased its assets. And this made it easier to borrow money to develop both the pinspotter—and the atomic energy division.

Also, AMF bet wisely and well on defense products. By 1952, working largely with government capital, the company was turning out \$52-million worth of military goods. That year total sales were \$100-million, compared with only \$52-million in 1951.

In the same year, AMF first marketed its new, less cumbersome pinspotter. The new version caught on from the start. The company leases the machines to bowling alleys on 10-year contracts; within the next few months, it expects to make the 30,000th installation. At an average yearly rental of \$1,400 apiece, AMF can look for \$42-million in annual revenue from the devices—and at least 20%, or \$8.4-million, will be profit.

In another five years or so, the company thinks pinspotter installations will start to level off after hitting 70,000. For one thing, a competitor, Brunswick-Balke-Collender Co., is now after the remaining business, too.

Happily for AMF, earnings from the pinspotter came just in time to more than make up the difference when dollars from defense and other jobs began dwindling. Unhappily, though, the company has also moved so fast that it has not been able to grow into a cohesive unit.

It's demonstrably harder to run a polyglot company than an outfit with only one or two product lines (BW-

Sep. 21 '57, p151). And even though AMF's acquisitions usually arrive with effective management of their own, it takes time to get used to working together and under a new owner.

II. Management Setup

AMF's approach to the management problem has been to keep all its properties highly autonomous and to function pretty much in the manner of a holding company. Top brass from AMF takes four out of seven seats on a new acquisition's board, which meets once every two months. The subsidiaries have direct access to four top AMF consultants—on marketing, finance, engineering, and manufacturing. Their closest contact of all is with the AMF treasurer. But generally, as long as everything goes well, they're on their own. Patterson, for instance, is usually more interested in atomics or the pinspotter than in the subsidiaries.

If something goes wrong, the AMF staff steps in, of course. But, as in many companies, this is likely to be after the fact. AMF's corporate staff is still pretty slim, and it's characteristic of the company that it consists almost entirely of people imported from outside.

Hiring Policy—There were evident reasons for this. For one thing, Patterson started with a smallish job order machine shop, and there were few people who could be quickly shifted to central staff positions of an entirely different nature. For another, management of the acquired companies was needed where it was. Still a third reason was Patterson himself—who is, in many ways, AMF.

It's true that Patterson can delegate responsibility. But he still likes to keep his hand in on day-to-day details and orders. He has been known to bypass normal channels on various projects in which he has a personal interest. "Part of the pressure there is the worry of sudden demands for explanations, or changes in orders from the top office," says an ex-staffer of this tendency.

This same personal approach has been applied to hiring for top jobs. In his years of travel, intermittent government service in Washington, and contact with the military, Patterson has encountered numbers of men who impressed him. Evidently his frequent reaction has been to offer them jobs.

Patterson will hire a likely prospect, "put him on the hook" for a year or

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so as a presidential assistant, and then shunt him into some other spot.

- **Proof of the Pudding**—Of AMF's six top men today, no fewer than four started this way.

- Frank Downey, head of the pin-spotter division, met Patterson during the war, when both were working on the War Production Board rubber program.

- Frank White, who heads international operations, was directing the Marshall Plan in West Germany when Patterson found him.

- Ted Stanwick, vice-president in charge of defense products, was an admiral's aide who impressed Patterson during the war.

- Exec. Vice-Pres. Rodney C. Gott was an Army colonel brought in to direct acquisitions.

Even Gen. Walter Bedell Smith, former Under Secretary of State and Ambassador to Moscow, belongs to this group. When Patterson met him, Smith was head of the Central Intelligence Agency. He promised to go to work for AMF when he retired from government service, and two years later he came aboard as vice-chairman and presumably elder statesman. But Smith soon found himself at the helm of AMF's atomic energy program and, as "chief of staff," running the company in Patterson's absence.

In fact, AMF has become something of a "generals' company." At the moment, five retired generals are on the staff, and several more have been on the payroll at one time or another. There's also a generous sprinkling of retired colonels.

- **Future**—So far, despite the spate of special assistants to handle top jobs, Chmn. and Pres. Patterson has appointed no heir apparent. Patterson is now 60, but he says of the future: "Unless I can find exactly the right man, I will continue to be president for the next five years . . . and it's not easy to find exactly the right man." Nor is he likely to. In the meantime, he's enjoying both jobs.

III. Everything Isn't Busy

Although Patterson's company is now big and healthy, not all its ventures have flourished. Some that were prosperous turned sour, and others have yet to pay out. Here, for example, are some of the problem children:

- Electric motors, where return on investment is very low.

- Electronics. "We got burned," says an officer of lost contracts.

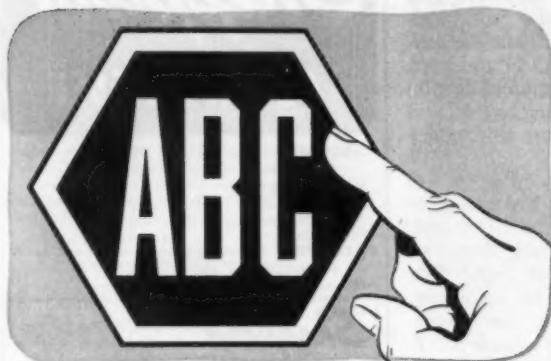
- Wheel goods, bicycles, and toy cars, once big moneymakers but now in distress because of the flood of cheaper imports. This division lost \$500,000 last year, but now has pulled back into the black.

- Atomic energy, where the pay-

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"... AMF isn't going to swear off buying new properties, but will complement present subsidiaries . . ."

STORY starts on p. 197

off years are still far in the future. The atomics division runs at a loss, and recently AMF—a big factor in research reactors—had to back away from a power reactor project because costs were so high (BW-Oct. 12 '57, p.48).

• Defense, which isn't the business it used to be. Returns are low, and contractors must now work with their own capital, rather than the government's. Cancellations can also hurt. AMF has \$30-million tied up in defense inventories and accounts receivable, and it would dearly love to use this money elsewhere.

Finally, AMF is beginning to feel something that's been happening to many companies. A number of its profitable acquisitions may have started to run out of steam—or, at least, their growth may no longer be automatic. So instead of supporting the parent, they may need a boost themselves. Or perhaps AMF will have to trim them back a bit.

• Recourses—In all, slightly more than 50% of AMF's sales are in lines of business that now bring the company little or no return. The proposed remedy is to cut back on defense jobs and on loss or marginal operations (some of which might possibly even be shucked off). Cash released this way could be plowed into high-profit operations, such as the pinspotter, oil field equipment, a fairly recent acquisition, W. J. Voit Rubber Corp., or other newer fields.

AMF isn't going to swear off buying new properties. But its policy now will be to try to stick to companies that complement present subsidiaries with a strong growth or profit potential.

The company is also instituting internal training programs for management, sending men off to business schools and seminars to "get rounded out," and generally making moves to promote more future managers from within.

This sort of thing is often an instinctive—and inevitable—assertion of its prerogative by middle management, says one consultant, but in a company as big as AMF is now, that makes a lot of sense. Company officers admit that good insiders—who know a company well—should be able to do a better job than good outsiders who don't. But the change won't come overnight. AMF still flirts with outside talent—and, in fact, makes use of a professional scout to help find it. END

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Index for Business Week October 26, 1957

ADDO MACHINE CO., INC.	109	HARNISCHFEGER CORP.	119	REYNOLDS METALS CO.	172
Agency—The F. W. Prelle Co.		Agency—Hoffman & York, Inc.		Agency—Huchanan & Co., Inc.	
AIR EXPRESS DIV. OF RAILWAY EXPRESS AGENCY, INC.	105, 106, 107	Agency—L. C. Clegg Co.	133	Agency—Hixson & Jorgenson, Inc.	148
Agency—Burke Dowling Adams, Inc.		THE HOME INSURANCE CO.	181	RON & HANS CO., (PLASTICS DIV.)	104
ALLEN-BRADLEY CO.	51	Agency—Albert Frank-Guenther Law, Inc.		Agency—Hendrick, Preston, Chapin, Lamb & Keen, Inc.	
Agency—The Fenoholt Adv. Agency, Inc.		THE FRANK G. HOGAN CO.	142		
ALLISON DIV., GENERAL MOTORS CORP.	19	Agency—Ervin R. Abramson		RUSSELL, BURDSALL & WARD BOLT & NUT CO.	
Agency—Kudner Agency, Inc.		IDEAL CEMENT CO.	69	Agency—Marsteller, Richard, Gehhardt & Reed, Inc.	182
ALUMINUM CO. OF AMERICA	59, 183	Agency—Henderson, Bucknum & Co.		ST. LOUIS SOUTHWESTERN R. R.	196
Agency—Korman, McCormick & Grove, Inc.		AMERICAN LAND ESTATES.	81	Agency—Hata, Hodges, Neumann	
AMERICAN BOSCH ARMA CORP.	130	Agency—Emanuel E. Pfeifer		SAN JOSE CHAMBER OF COMMERCE	128
Agency—Doyle, Kitchen & McCormick, Inc.		JOMAC, INC.	132	Agency—Long Adv. Inc.	
AMERICAN CYANAMID CO.	101	Agency—G. Rogers Adv.		SHAW-BARTON, INC.	118
Agency—Hazard Adv. Co., Inc.		JONES & LAUGHLIN STEEL CORP.	87	Agency—The Bayless-Kerr Co.	
AMERICAN GAS & ELECTRIC SERVICE CORP.	199	Agency—Ketchum, MacLeod & Grove, Inc.		W. A. SHEPPARD CO., INC.	35
Agency—Korman, McCormick & Grove, Inc.		KIRK & BLUM MFG. CO.	158	Agency—Burke Dowling Adams, Inc.	
AMERICAN OPTICAL CO.	34	Agency—Krebs & Hoffer, Inc.		SHELL CHEMICAL CORP.	2nd Cover
Agency—Sutherland-Abbots		KLING PHOTO CORP.	202	Agency—J. Walter Thompson Co.	
AMERICAN SCREW CO.	153	Agency—Herbert Baker Adv., Inc.		R. H. SHEPPARD CO.	202
Agency—Sutherland-Abbots		SAMUEL M. LANGSTON CO.	157	Agency—The William B. Kamp Co.	
AMERICAN TELEPHONE & TELEGRAPH CO.	13	Agency—Gray & Rogers		SIMPLEX WIRE & CABLE CO.	123
Agency—Korman, McCormick & Grove, Inc.		LIBERTY MUTUAL INSURANCE CO.	56	Agency—The London Adv., Inc.	
AMERICAN WINDOW GLASS CO.	28-29	Agency—Long Adv. Co.		S K F INDUSTRIES, INC.	146
Agency—W. S. Walker Adv., Inc.		LIGHTOLIER CO.	130	Agency—O. S. Tracy Co., Inc.	
ANACONDA WIRE & CABLE CO.	32-33	Agency—Alfred Auschab Assoc.		SMITH-CORONA, INC.	124
Agency—Kenyon & Eckhardt Inc.		LINDE CO.	89	Agency—Cunningham & Walsh, Inc.	
"AUTOMATIC" SPRINKLER CORP.	181	Agency—J. M. Mathes, Inc.		STATE OF RHODE ISLAND (R. I. DEV. COUNCIL)	202
Agency—M. Bradford Co.		MAGNAFLUX CORP.	178	Agency—Burke Dowling Adams, Inc.	
AUTOMATIC TRANSPORTATION CO.	170	Agency—Stoetzel & Assoc., Inc.		STEINER SALES CO.	128
Agency—Ruthrauff & Ryan, Inc.		P. F. ALLEN CO., INC.	141	Agency—Hartt F. Port	
BANK OF MONTREAL	121	Agency—The Atkin-Kynett Co.		STEWART WARNER CORP.	185
Agency—Doremus & Co.		MANNING, MAXWELL & MOORE, INC.	68	Agency—MacFarland, Ayer & Co.	
THE BANK OF NEW YORK	55	Agency—Fuller & Smith & Ross, Inc.		STONE & WEBSTER ENGINEERING CORP.	143
Agency—Doremus & Co.		MARCHANT CALCULATORS, INC.	159	Agency—Burke Dowling Adams, Inc.	
BANK OF NOVA SCOTIA	108	Agency—Foot, Cone & Balding		SYLVANIA ELECTRIC PRODUCTS, INC.	75
Agency—J. Walter Thompson Co., Ltd.		MARINE TIDAN CORP.	149	Agency—J. Walter Thompson Co.	
THE BASSICK CO.	108	Agency—Batten, Barton, Durstine & Osborn, Inc.		TAYLOR FIBRE CO.	135
Agency—J. Thomas Chirurg Co., Inc.		MASTER ELECTRIC CO.	189	Agency—The Atkin-Kynett Co.	
BEDDEN MFG. CO.	96	Agency—Kircher, Helton & Collett, Inc.		THIOKOL CHEMICAL CORP.	77
Agency—The Fenoholt Adv. Agency, Inc.		McGRAW-HILL BOOK CO., INC.	182, 191	Agency—Kelly Nason Inc.	
BENDIX AVIATION CORP.	97	McLONELL STEEL CORP.	165	TINNERMAR PRODUCTS, INC.	71
Agency—MacManus, John & Adams, Inc.		Agency—Denman & Baker, Inc.		TOLEDO SCALE CO.	129
CHARLES BRUNING CO., INC.	88	METALS & CONTROLS CORP., SPENCER THERMOSTAT DIV.	158	Agency—Benson-Reichert, Inc.	
Agency—H. W. Kastor & Sons Adv. Co., Inc.		Agency—Sutherland-Abbot		TRANSAMERICAN FREIGHT LINES, INC.	70
THE BUDD CO.	50-61	METROPOLITAN OAKLAND AREA COMMITTEE	16-17	Agency—Roy C. Hayes	
Agency—Lewis & Gilman, Inc.		MINNEAPOLIS-HONEYWELL REGULATOR CO.	30-31	TRAVELERS INSURANCE CO.	68
BURRINGTONS CORP.	4th Cover	Agency—The Atkin-Kynett Co.		Agency—Burke Dowling Adams, Inc.	
Agency—Campbell-Ewald Co.		MINNESOTA MINING & MFG. CO.	80	TRION, INC.	138
CARRIER CORP.	20-21	Agency—Batten, Barton, Durstine & Osborn, Inc.		Agency—W. H. Walker, Adv., Inc.	
Agency—N. W. Ayer & Son, Inc.		MISSOURI PACIFIC LINES	134	TWIN DISC CLUTCH CO.	156
CELANESE CORP. OF AMERICA	73	Agency—D'Arcey Adv., Co.		Agency—Curtis, Quinlan, Keene & Peck, Inc.	
Agency—Ellington & Co., Inc.		MONROE CALCULATING MACHINE	137	UNITED STATES RUBBER CO.	171
CENTRAL ILLINOIS PUBLIC SERVICE CO.	83	Agency—L. H. Hartman Co., Inc.		Agency—Fletcher D. Richards, Inc.	
Agency—Evans-Work Adv. Agency, Inc.		MONTREAL CHEMICAL CO. (PLASTICS DIV.)	113	U. S. STEEL CORP.	180
CENTURY ELECTRIC CO.	102	Agency—Needham, Louis & Berney, Inc.		Agency—Batten, Barton, Durstine & Osborn, Inc.	
Agency—French & Shields, Inc.		MORSE CHAIN CO.	29	UNIVERSAL OIL PRODS. CO.	154
CHEMICAL INDUSTRIES EXPOSITION	108	Agency—Brooks, Smith, French & Dorrance, Inc.		Agency—Sam J. Galay	
Agency—O. S. Tyson & Co., Inc.		NATIONAL ANILINE DIV., ALLIED CHEMICAL & DYE CORP.	172	VANADIUM CORP. OF AMERICA	168
CITIZENS & SOUTHERN NATIONAL BANK	190	Agency—James J. McMahon, Inc.		Agency—Hazard Adv. Co.	
Agency—Burke Dowling Adams, Inc.		NATIONAL BLANK BOOK CO.	180	VU-LIGHTER CORP.	92
CLARAGE FAN CO.	190	Agency—Sutherland-Abbot		Agency—Al Paul Leffton Co., Inc.	
Agency—McLain & Assoc.		NATIONAL CASH REGISTER CO.	37	WEBSTER ELECTRIC CO.	76
CLEVITE CORP.	67	Agency—McGinn-Erickson, Inc.		Agency—Franklin Adv., Inc.	
Agency—Duffy, McClure & Wilder, Inc.		NATIONAL STEEL CORP.	38-39	WESTERN UNION TELEGRAPH CO.	93
CLUES (CLASSIFIED ADVERTISING)	202	Agency—Campbell-Ewald Co.		Agency—Benton & Bowles, Inc.	
COLSON CORP.	122	NEW YORK CENTRAL SYSTEMS	24-25	THE WORLD PUBLISHING CO.	94
Agency—Hotchkiss & Haas Adv., Inc.		Agency—J. Walter Thompson Co.		Agency—Denhard & Stewart, Inc.	
COMBUSTION ENGINEERING, INC.	160	NEW YORK LIFE INSURANCE CO.	18	ZENITH PLASTICS CO.	144-145
Agency—G. M. Bradford Co.		Agency—Compton Adv., Inc.		Agency—Batten, Barton, Durstine & Osborn, Inc.	
CONCRETE REINFORCING STEEL INST.	109	NICKEL PLATE ROAD	130	ZURICH INSURANCE CO.	184
Agency—The Fenoholt Adv. Agency, Inc.		Agency—Fuller & Smith, Inc.		Agency—Vaughn, Thain & Speer, Inc.	
CONVAIR, DIV. OF GENERAL DYNAMICS CORP.	3rd Cover	OLIN MATHIEUON CHEMICAL CORP., INDUSTRIAL CHEMICALS DIV.	22-23		
Agency—Bussanan & Co., Inc.		Agency—Dorle, Kitchen & McCormick, Inc.			
CONVULUX DIV., L.O.F. GLASS FIBERS CO.	174	OLIVETTI CORP. OF AMERICA	170		
Agency—Birrell, Drye & Co.		OLYMPIA DIV., INTER-CONTINENTAL TRADING CORP.	196		
DENNISON MFG. CO.	200	Agency—Le Porte & Austin, Inc.			
Agency—Batten, Barton, Durstine & Osborn, Inc.		THE OSBORN MFG. CO.	194		
DETROIT EDISON CO.	62	Agency—The Griswold-Eshleman Co.			
Agency—Campbell-Ewald Co.		ÖZALID DIV. (GENERAL ANILINE & FILM CORP.)	197		
DIAMOND ALKALI CO.	115	Agency—Benton & Bowles, Inc.			
Agency—Fuller & Smith & Ross, Inc.		PAGE FENCE ASSN. (AMERICAN CHAIN & CABLE CO., INC.)	120		
DUNHAM-BUSH, INC.	12	Agency—Reincke, Meyer & Finn, Inc.			
Agency—William Schaller Co., Inc.		PHELPS DODGE COPPER PRODUCTS CORP.	73		
EAGLE-PICHER CO.	28	Agency—Compton Adv., Inc.			
Agency—The Ralph H. Jones Co.		PITTSBURGH CORNING CORP.	110		
EASTMAN KODAK CO.	156-167	Agency—Ketchum, MacLeod & Grove, Inc.			
Agency—J. Walter Thompson Co.		PITTSBURGH STEEL CO.	14-15		
EQUITABLE LIFE ASSURANCE SOCIETY	8-9	PROVIDENT LIFE & ACCIDENT INSURANCE CO.	78		
Agency—Kemper & Eckhardt, Inc.		Agency—Power & Condon Adv.			
GARDNER DENVER CO.	11	RADIOPHONIC CORP. OF AMERICA, (COMM. ELECTRONIC) CORP.	90		
Agency—The Burch Co.		Agency—Al Paul Leffton Co., Inc.			
GAYLORD CONTAINER CORP., DIV. OF CROWN ZELLERBACH CORP.	184	RENINGTON RAND, DIV. OF SPERRY RAND CORP.	4		
Agency—French & Shields, Inc.		Agency—Paris & Pearl, Inc.			
GEORGIA POWER CO.	72	REPUBLIC STEEL CORP.	8-7		
Agency—Lowe & Stevens		Agency—Meldrum & Fowsmith, Inc.			
THE GLIDDEN CO.	83				
Agency—Meldrum & Fowsmith, Inc.					
H. F. GOODRICH INDUSTRIAL PRODUCTS CO.	3				
Agency—The Griswold-Eshleman Co.					
GOODYEAR TIRE & RUBBER CO., INC.	102-103				
Agency—Kudner Agency, Inc.					
GRAPHIC SYSTEMS	116				
Agency—Diener & Dorkind, Inc.					
GRAY CO., INC.	10				
Agency—Alfred Cole Co.					
GUARANTY TRUST CO. OF NEW YORK	102				
Agency—Albert Frank-Guenther Law, Inc.					

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The Nation Waits for Washington

It is three weeks now since the Russians shot their artificial satellite into its pre-calculated orbit, thereby demonstrating that they had taken the lead in the race for new weapons. Three weeks should have been enough time for the U. S. to get over its initial shock and start facing up to the question of how it proposes to live in a new and unpleasant kind of world—a world in which it no longer has the protection of overwhelming superiority in technology.

So far, there is no indication that this imperative readjustment in the country's thinking is in progress. If anything, the public mind is more confused today than it was three weeks ago.

Much of this confusion in public thinking simply mirrors the confusion that is evident in the official statements that have been coming out of Washington. Pres. Eisenhower, at his first press conference after the launching of Sputnik, declared that his concern about national defense had not been increased "one iota." White House Assistant Sherman Adams tried to dismiss it with a joke about basketballs. Various other figures in the Administration have argued that there never was a race with the Russians and that there is no military significance to the fact that 184 lb. of Soviet metal is now circling the world every 96 min.

Behind the scenes there is evidence of deep concern. The State Dept. is in a flap and will say so to anyone who asks how it feels about Sputnik and the Soviets' obvious intention of exploiting their advantage. Prime Minister Macmillan, of Britain, arrived this week for a series of conferences with the President that certainly include a discussion of the possibility of pooling U. S. and British weapons research. Vice-Pres. Nixon, in a guarded warning to the country and perhaps to some of his colleagues, has said that defense demands may rule out a tax cut next year. And from all over Washington, below the Cabinet level, there comes a flood of criticism and apprehensive prediction, obviously reflecting things that were said at some of the recent meetings of government officials and their scientific advisers so pointedly billed as "purely routine."

This is a bad situation. At best it gives the country an impression of uncertainty and vacillation in Washington. At worst, it looks like a head-in-the-sand refusal to admit that anything has happened.

The Wrong Medicine

As a first reaction, the Administration's decision to maintain a calm face is entirely understandable. The leaders of great nations are not privileged to do their worrying in public. They have to remember that they are being watched not only at home but abroad—by wavering allies and suspicious neutrals.

But what is appropriate as a first reaction becomes

less and less appropriate with each day that passes. However reassuring the Administration's stiff upper lip may be to foreigners, it is anything but reassuring to those Americans who think this country is suffering from a bad case of complacency.

All the reassuring statements that ever went through a mimeograph machine will not make Sputnik go away. And the fact that Sputnik is there means that the U. S. has to make some decisions—decisions that are literally a matter of national life or death.

Facing the Facts

First, there is the question of how we make up our lost ground in the missile race. And then, beyond that, we have to undertake a complete reassessment of our place in the world. U. S. defense policy, whether we have admitted it or not, has been based on the assumption that Russia was and always would be a second-rate industrial nation. The launching of Sputnik demonstrates with chilling finality that Russia not only has scientists equal to ours but that she has a highly developed and enormously capable industry to back them up.

For the U. S., this means that a whole series of questions must be asked and answered. They are complex questions. They cannot be answered with snap judgments. No one will complain if the Administration moves slowly and takes careful counsel.

But the Administration cannot wait until it has all its ducks in a row before it takes the country into its confidence. The time has come for Washington to set its position frankly before the country, to put its concern on the record, to tell the nation what questions it is asking and what advice it is seeking. If the Administration's counsels are divided, the country is entitled to know it and to know just who is giving what advice.

There has been a severe shock to public confidence—as the violent reaction of the stock market testifies. Under the circumstances, it is especially important that the Administration avoid the error it made in dealing with the budget controversy early this year, when for so long it spoke in contradictions and gave the impression of indecision and uncertainty.

Again and again throughout their history, the people of this country have shown a capacity for facing hard facts and accepting practical decisions. They will respond in the same way to the present emergency—if they are not encouraged to go back to sleep and forget the whole thing.

As we know now, it was a serious mistake to underrate the Russians. It would be an infinitely greater mistake at this point to underrate the people of the U. S.



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